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THE  
JOURNAL  
OF  
THE ASIATIC SOCIETY  
OF  
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BENGAL.

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EDITED BY

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OF NATURAL SCIENCES OF PHILADELPHIA ; OF THE  
PHILOSOPHICAL SOCIETY OF GENEVA ; OF  
THE ALBANY INSTITUTE, &c.

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JULY TO DECEMBER,  
**1838.**

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“ It will flourish, if naturalists, chemists, antiquaries, philologists, and men of science, in different parts of *Asia* will commit their observations to writing, and send them to the Asiatic Society at Calcutta ; it will languish, if such communications shall be long intermitted ; and will die away, if they shall entirely cease.”

SIR WM. JONES.

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# JOURNAL

OF

## THE ASIATIC SOCIETY.

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No. 79.—July, 1838.

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### I.—Excursions to the Eastward. No. 1.

*Extracts from the Journal of a Political Mission to the Rája of Ligor in Siam. By Capt. JAMES LOW, M. N. I. and M. A. T. C.*

When the Burmese war broke out in 1824 I had the honor of being deputed by the honorable Mr. PHILLIPS, then at the head of the government of *Prince of Wales' Island* as envoy to the rája of *Ligor* with the view of obtaining some co-operation of the Siamese with the *Rangoon* expedition, and especially by means of a fleet of boats. It is unnecessary here to enter into political details; but it may be briefly remarked that the Mission returned after a tedious negotiation of three months without being able to effect all the objects contemplated. This was owing to the suspicious temper of the Siamese court, which could not for a long while credit that the British arms would finally prevail. At a subsequent period when aware of the mistake, this haughty and ambitious, yet politic court discovered that the dilatoriness of its councils had shut it out from any share in the conquered territories.

The schooner *Commerce* of 60 tons burden, Capt. CHEVERS, an American commander, was taken up for the conveyance of the Mission. A native officer with a party of sepoys formed the escort, and camp equipage was provided in case it might be wanted for a march overland.

We sailed on the 7th May, 1824, and proceeded up the *Keddah* coast. On the right, *Gunong Jerrei* the *Keddah* peak forms a very prominent feature of the coast. Its height is about 4000 feet\*. It is

\* By the Trigonometrical Survey made by Mr. WOORE of the navy its height is 3894 feet.

very steep where it faces the sea ; and here the streams of water which flow over the smooth dark granite rock, when struck by the sun's rays, appear like fleecy clouds wreathing the mountain.

The formation of this mountain is primary. The secondary and tertiary formations are not easily discoverable until we reach the small islands called the *Buntings*, which lie nearly opposite to it. At its base strata of laterite, and other conglomerates and accumulations of debris prevail. In the deep narrow valleys lying betwixt the shoulders of the mountain I observed tin ore of an excellent quality in the form of grains. The Chinese were making what they called a mine, which was merely a square excavation about thirty feet wide and from two to three feet deep. The ore was loosely deposited below quartz and schistose gravel.

Suspended from the ceiling of the smelting house were wooden models of all sorts of native arms and implements intended to charm away evil spirits.

*Jerrei* and *Cherrei*, by both of which appellatives this mountain is known to the Malays, are corruptions of the term *Srai* which was the ancient name of the *Keddah* country when entirely peopled by the Siamese race, about A. D. 1340. A commercial colony from the westward under a chief named MARRONG MAHAWANGSA which settled near the base of the mountain *Srai* was the cause of the country becoming a place of greater resort than before that event for traders from India. The above named chief changed the name of the country to *Keddah*, but the Siamese continue to call it *Srai* or *Chrai*. I shall have occasion in a subsequent paper to state some further particulars respecting the condition of this country in former times.

8th. Anchored off the mouth of the *Keddah* river. The anchorage is good in the north-east monsoon ; but in the south-west monsoon it is a disagreeable if not an unsafe one, the shore being a lee one and the swell heavy.

The Yokkabat, one of the Siamese government officers, came off to say that the governor would give me an audience next day. I accordingly waited on him at his *sala* or *thamoneup* or hall of audience. PHRA PHAK DEE BAREERAP is a young man of about twenty years of age. He is an illegitimate son of the rája of *Ligor* ; he entered the hall immediately on my arrival. He was preceded by two men carrying *dap deng* or swords of state. These are about five feet long and have red velvet scabbards. On the right and left were soldiers bearing *dap he* which are also swords of state having golden hilts. Princes in *Siam* have generally twenty sword-bearers on each side of them

when sitting in durbar. I bowed in the English fashion to the young chief and then sat down on a chair which had been placed for me six paces in front of the raised platform, on which he had seated himself with his legs crossed and supported by cushions. Behind me the native officer and havildar with their swords on, stood along with several other attendants. The Siamese interpreter to the Mission placed himself on the carpet at my feet. Close on the left squatted both the minister of the chief and also his interpreter. The object of this interview was to explain to the Siamese the nature and objects of the Burmese war, and to obtain permission to cross the Peninsula to *Ligor*. The chief positively refused to comply with the latter request until he had the sanction of his father.

The Mission therefore would proceed, I told him, up the coast in order to open a more speedy communication with the Ligoreans. The young governor smoked segars during the whole audience. The minister alluded to is a very fat man, and the uneasy, unnatural posture which etiquette compelled him to keep, gave him the appearance of a huge baboon, the resemblance being heightened by the manner in which, according to the Siamese fashion, his hair was brushed up in front.

The interpreter passed and repassed betwixt the chief and myself on his knees and elbows, a tedious and disgusting operation, but characteristic of the procrastinating nature of Siamese diplomacy.

The governor was naked from the waist upwards. His hair was short and his head uncovered.

The lower half of his person was clothed in a dress of silk and gold. This is the common dress in lower *Siam*, and the *rāja* of *Ligor* and his sons affect simplicity, partly it may be supposed through policy, and the fear of exciting the cupidity of the minions about the court of *Bankok*.

Many however of the inferior officers wear silk vests or tunics embroidered with gold or silver, and also long crape scarfs which they either use like cloaks, or wind round them as sashes. The favorite color for these last is black.

The town of *Keddah* stands on the south bank of the river, and consists of a single street of mean artap houses\*. It is protected by a brick defence, comprising an area of about eighty yards by fifty. Within are the houses of the governor and his officers and soldiers. The wall of this work varies in height from eight to ten feet. Several large iron guns are mounted on the wall facing the river. There is no

\* This term is given to the eastward to houses constructed of light materials and thatched with artap or nipah leaves.

ditch on this side and the space betwixt the foot of the wall and the river's bank is a gentle slope of a dozen yards. This fort, as the natives term it, could not withstand for a quarter of an hour an attack by a regular force.

Piles had been driven into the river below the town leaving only a narrow passage. In descending, the tide carried our boat against these, and it narrowly escaped being wedged in betwixt two of them.

11th. Set sail in the direction of *Sittool*, a small town on the bank of a river of the same name. Finding that it would delay us did we ascend this river we returned to the vessel. The bason into which it empties itself and which is formed by islands is very shallow. Proceeding along the coast the general aspect is monotonous. Here and there an open spot covered with long grass and interspersed with fine trees seems to give an earnest of cultivation. But a nearer approach dissolves the spell. In fact the cultivation on the *Keddah* coast, with a very few exceptions, does not begin until a distance of a mile or two from the sea.

I have in a former paper\* described the *Lancavy Islands* and others adjacent to them, and shall therefore here omit that part of the journal which relates to them.

16th. Having encountered nothing but contrary winds we ran in for *Trang* harbour, but were forced to come to an anchor before reaching it, after having with great difficulty and hazard weathered two high limestone rocks which lie off the south end of *Pulo Tilibong*. There being no endurable cabin, the tents were got up and spread out so as to shelter us from the torrents of rain which fell during the night.

17th. Finding that no progress could be made, the boat was got out and I proceeded to the island to examine it. There was a very heavy swell and a double surf at the shore of the small bay on the south side of the island where we landed, and we narrowly escaped being swamped. The island is uninhabited, and had been deserted since the Burmese descent on *Junkceylon* in 1808; several droves of wild buffaloes were seen on a plain in the middle of the island. At these a few shots were fired without much effect. On returning to the Bay no boat could be found. At length the Arab who had been left in charge of it was discovered seated in moody silence below a tree. He significantly pointed to the surf, adding "*she lies there.*" As this was our only boat, and the *Commerce* was hull down, our case appeared somewhat desperate. Fortunately the rope attached to the anchor on shore held fast, and by help of this and the exertions of all hands after two hours hard work

\* As. Res. Trans. Phys. class, part I. paper VI.



the boat was got on shore. It was full of sand and two of the planks were stove in. The jackets of the men were employed to close these apertures, and then by dint of constant baling our party reached the vessel in safety.

19th. Anchored in *Trang* harbour within bowshot of a small creek. The channel is narrow, and it deepens towards the anchorage at this creek which runs up into the east side of the island. This spot is about three miles distant from the guard house at the mouth of the *Trang* river, and about twelve from *Khoan Tani* the chief village of the district which also lies on the banks of the river.

*Pulo Tilibong* was formerly inhabited, but the wars of *Salang* which exposed it to Burman ravage scared the people away. On the sandy beach on the eastern side we found the remains of a stockade which had been constructed with shinbeans or roughly planed planks, about two or three inches in thickness, of the wood called by the Siamese *mai kheim*, and *khayù geam* by the Malays. These planks were about ten feet above the ground in height. This is a very hard and durable wood, and of a dark color. Although it had been exposed to the weather in this stockade for upwards of twelve years, it seemed to have only increased in hardness by age.

In a cave in a high rock which guards the northern entrance to the harbour, I discovered twelve human skulls placed in a row; they probably belonged to some of those men who had fallen in the wars just alluded to. This cave contains many fine stalactitical masses.

There is a channel betwixt the island of *Tilibong*, and the main shore which is generally used by the Chinese junks which go up from *Penang*. There is no safe channel for vessels from *Tilibong* harbour to the river's mouth. The harbour ends in a deep excavation of 9 feet, being merely the channel which is formed by that portion of the waters of the river which flow in this direction.

*Trang* is a thinly peopled district. About three thousand persons of both sexes may be taken as the utmost extent of the population.

The river and its adjacent shores are chiefly valuable to the Siamese on account of the facilities which both afford for boat building, and of some tin mines at the skirts of the hills. *Trang* river bears properly only one embouchure although the maps represent it otherwise. Junks go up it for ten or twelve miles (by the course of the river). About six hours' rowing up it divides into two branches.

*Khoan Tani* is the chief village. Poultry and some other refreshments can be obtained. The finest kinds of fish swam at the mouth of the river and in the harbour.

The Chinese of *Penang* export from *Trang* tin, a little ivory (which is contraband,) bird's nest, hogs, poultry, and rice. A Chuliah or jaur Pakan\* manages the rája's mercantile transactions. The river is quite undefended. From *Khoan Taní Ligor* can be reached in seven stages†. Tigers abound on the route. Expresses are generally conveyed by parties of seven men, who make the best of their way without always keeping together, the strongest carrying the express last and leaving the weaker behind.

21st. About midday the *Than Palat* or superintendent of the district with his two colleagues came on board. They appeared under considerable alarm.

Letters were despatched by their assistance to their master at *Ligor*, for it was found that these men had less authority vested in them than the Governor of *Keddah* possessed. The apprehensions of an attack by the Burmese had not yet subsided here, and the news of the British having gone to war with that people gave evident satisfaction to these officers. The *Than Palat* observed, that although the Siamese and the Burmese had a common origin, and have now one religion in common, yet their minds never in any manner allied. The English, they observed, could easily accommodate themselves to Chinese and Siamese customs, because they eat the same kind of food. These men were well dressed in white silk crape vests, with short sleeves. The under dress was composed of chequered silk. They partook freely of wine and biscuit, and became soon so loquacious that some state secrets escaped them, or which they doubtless considered such, although in reality as regarded us amounting to nothing.

We left *Trang* on the 26th, and after encountering rainy and boisterous weather, rendered more annoying from the want of any decent accommodation on board, we reached *Junkceylon* on the 29th.

The harbour of this island is too well known to require a description here. There is neither village or hut on the beach, and at first sight a stranger might suppose that the island had been deserted. After searching about for some time in the boat for the *Tharúa* stream or creek, we observed a boat with natives in it close to the beach. On seeing us they took to flight although armed with muskets and other wea-

\* The descendant of a Chuliah or *Coromandel* man and a Malay woman.

† 1 Tha cheen.

2 Don thamma praang.

3 Kroong mo-au.

4 Kassang.

5 Chong khau.

6 Chong,

7 Ligor,

} No population.  
 }  
 }  
 }  
 }  
 } Small villages.

pons. They were overtaken, and proved to be a party of Siamese. A shaven priest of BUDDHA kept the helm. Recovering from their alarm they shewed us the creek we were looking for. The opening into it through the mangrove trees is very narrow, and might be mistaken for a mere inequality in the general line of jangal. Although we had left the ship at sunrise, we did not reach *Thæ Rúá* town until about sunset. This was owing to the narrowness of the stream which prevented oars being of any use. The heavy ship's boat was towed up by fixing a rope to trees ahead and hauling on it, and by the boatmen dragging it against the current ; they being at the same time up to the neck in water.

LOANY BAM PRONG the Siamese officer in charge of the island received me with much politeness and hospitality in his own house\*. His wife, a stout good-humoured dame, of about thirty, immediately set to work in the kitchen to prepare me a supper or rather dinner. The kitchen was on the same floor with the apartment allotted to me, and I could perceive the whole process of cookery, which was certainly by no means of that description which could injure the appetite of any traveller of moderate expectations. The dinner, consisting of poultry, eggs and vegetables, was served up in clean China plates and cups, with spoons of china-ware ; custards, confections and fruits formed the second course. My host declined partaking of the viands. This was done out of respect, not prejudice ; for after I had dined, the dishes were removed to the next room, where he and his lady, who had cooked an additional dinner, dined. By this time the lower part of the house was full of people. But they behaved with much decorum. They all smoked cigars. The conversation was kept up betwixt the chief and me, accompanied by the flare of dammer torches until past midnight, and during it I could perceive that fealty to the emperor was a thing which lay very lightly on the heart of my companion. On our arrival the women were but scantily clothed, their busts being for the most part exposed. Next day, however, they all appeared, with the addition of the *phré*, which is a long piece of cloth, plain or variegated ; one end of it is put partly wound about the waist, and the remainder is brought over the left shoulder and then carried across the breast : they wore their hair short. The women bring water from the river in bamboos of ten or twelve feet long closed at one end. They carry them slightly inclined on their shoulders and place them upright against the walls of the houses. This plan is very

\* Built in the usual light style of the country and only distinguishable from the cottages around it by being larger.

inconvenient, since the bamboo which is heavy must be lowered when water is required by any of the household. Joints of the bamboo are in general use for carrying water on a journey, and rice can be sufficiently boiled for food in a green one, without the latter splitting. We returned to the ship on the 31st, after presenting some trifling presents to the chief and his lady, amongst which was some wine and brandy for eye-water, as she was pleased to term it.

*Salang* is the Siamese name for this island. It seems to have been originally peopled by the *Thai* or Siamese race, who have not paid that attention to it which policy should have dictated, seeing that it possesses valuable tin mines and forms one of the keys to their coast. Its importance as regards British influence has been much exaggerated, and since the fall of *Tenasserim* and its occupation by British troops the island has become of hardly any political importance to us. It could easily be taken at any time if rendered necessary by war.

#### *Salang or Junkceylon.*

The most correct account perhaps extant of this island is that contained in "FORREST'S Voyage to the *Mergui Archipelago*." But since his time (about 1784) many changes have taken place, not by any means contributing to its prosperity.

*Salang* is 27\* miles long by 10 at most in breadth, lying about E. S. E. and N. N. W. It is diversified by hill and dale. The hills are of moderate elevation, slope gradually, and are clothed with wood to their tops; while the levels are covered with grass and forest, excepting where cultivation has been carried on. Both the east and west coasts may be closely approached by large vessels, but the west being a lee shore the chief harbour has been chosen on the east side. A dangerous narrow passage only navigable by small prows separates the north point of the island from the main land, while the most southerly point is bold and rocky and difficult to clear unless the wind be quite favorable†.

The island abounds in streams, the principal of which is that which leads to *Thárooa* the residence of the governor.

The harbour is excellent, and it is covered by two islands in front, while a hill sufficiently high to give it the command of a great part of the harbour, juts boldly out from the main island.

\* 25 miles according to HORSBURGH.

† When returning from *Mergui* in the latter part of 1825, the vessel I was in was forced by the wind and currents so close on this point, that had the last tack she made not weathered it she must have been wrecked: we were within a cable's length of the rocks.



*Junkceylon* was long the field on which the Siamese and Burmans decided their claims to supremacy. This circumstance is alone sufficient to account for the desolate condition it has been reduced to. But that the Siamese have yet possession of it up to the period of the war betwixt the British and Burmese is more than might have been expected from the relative power of the contending parties, for the Burmans had long before driven the Siamese out of *Mergui* and *Tavoy*\*.

The last invasion happened about 1808 headed by a Burman general.

The troops were collected in *Martaban*, *Tavoy* and *Mergui* and amounted about 12,000 men. They were successful at first, but when they endeavoured to retreat with their booty and prisoners they were pursued by the Siamese and the *Keddah* Malays who were auxiliaries; numbers were slain, others were shipwrecked, and only about one half are supposed to have returned to *Tenasserim*.

The population of *Salang* is only now about 5,000 souls, which is not half of that rated by FORREST. *Tharoon* contained in this time eighty houses; there were only 18 in it when visited by me in 1824.

The Siamese are anxious to encourage the settlement of their own race here. But the genius of their government is better suited to retard than to facilitate the increase of the species. The Siamese court is too bigoted to that stumbling-block to nations,—custom, to perceive that artificial means which bear no reference to the first natural and simple maxims of political science can never be effectually employed to increase the population of a country.

The kings of *Siam* have been taught to look on their subjects as property which may be managed as they like, and they have made them slaves, because they can then best administer to their own luxury, avarice, and ambition. The minds of the Siamese are therefore depressed; no rank is perfectly hereditary, no private property however arduously acquired is safe, every man in the empire is liable to be forced from his family to serve in the army for years without pay, and life itself is often taken away for actions which even under many despotisms, and certainly under no reasonably free condition of society, would be termed faults.

\* The Siamese affirm that they conquered the island from the Burmese in 1916 of BUDDHA, A. D. 1373. The expedition was commanded by Prince CHAU NAI THA of *Ligor* in person.

They had to retake it from the Burmese in 1786, when four thousand of the latter nation were killed and made prisoners. The Siamese were compelled to cede *Tavoy* and *Mergui* to the Burmese in 1793.

To fill up the vacant spaces in their population the Siamese were constantly in the habits of kidnapping their neighbours the Peguers and Burmans ; frequently translating the population of whole villages at once. Then having planted them like exotics on a new soil they vainly supposed that strength was added to the state.

They did not leave off this practice on the *Tenasserim* frontier until long subsequent to the occupation of *Tavoy* and *Mergui* by the British. They have derived one advantage, yet a dubious one, from this system. It is the organization of a body of mercenary Peguan troops. Were not the families of these men strictly retained as hostages they could not for a moment be depended upon.

The population of *Salang* is almost exclusively Siamese ; the exceptions being Chinese.

The men are stout, and well enough proportioned ; and the women although not handsome, have fair complexions.

There are a few priests on the island and a pagoda. These priests or *chunkoo* do not seem to be fed so well as those of their sect generally are in *Siam* ; for several were observed returning from fishing with nets, an occupation at variance with the rules of the order.

On the east side of the island at *Lèm phra chañ* point, there are rocks which the Siamese affirm have been hewn into the figures of a dog and a crow. Some pieces of rocks perhaps do bear distant resemblances to such figures\*. However it was not in my power to go to the place.

Opposite to this point they also imagine that they can distinguish beneath the wave on a rock a *Rà-è teen*, or impression of the divine foot of BUDDHA.

The worship of the dog may be traced to remote antiquity. In *Egypt* it was prevalent, and in BRUCE'S Travels we find that the *Kowas* or watch dog of the skies is venerated in *Abyssinia*, not only was he raised by the antients to a conspicuous station in the heavens, but he was placed as the deep mouthed guardian of the infernal regions. In Hindu and Siamese mythology a portion of hell is given over to his power.

This singular species of worship was once openly professed by many Indo-chinese tribes, but now slight remnants of it alone remain. Thus amongst the Siamese there are many persons who on undertaking a journey or upon any unusual occasion invoke the great dog to avert

\* But on such vague reports I have frequently been induced to walk many miles in the hope of finding statues, inscriptions, &c. and have generally been quite disappointed.

all evil from them. The people of *Salang* had statues of this dog, the last of which was it is said carried off by some Malays. There is little doubt that the Malays also were once infected by this superstition, and it is worthy of notice that although so many centuries have elapsed since they were converted to Muhammadanism, yet it is curious to observe the large number of their former superstitious observances which they still retain and cling to, although denounced by MUHAMMAD.

The animals in *Junkceylon* are buffaloes, hogs, and deer. There are no wild elephants, but leopards are rather numerous in the wilder parts; common poultry was procured, but a large supply must not be expected here.

The situation of *Junkceylon* is sufficiently far to the northward of the line to give it all the advantages which the two regular monsoons afford, without subjecting it to the greatest violence of either.

Its climate is temperate, and the air is refreshed even in the dry season by copious showers. From June until November may be deemed the rainy season. The air is then cooled by the dry northeast monsoon. From February to June the weather is warmest. The soil of the island is various—clayey within the mangrove belt on the east side, sandy along the open beach on the west, and where hilly composed of the debris of the granite rock and vegetable matter. The extensive flats and gentle slopes are fitted for most tropical production, and the lower ranges of hills seem peculiarly adapted to the cultivation of indigo and coffee.

The island might not perhaps furnish grain for a crowded population, but its products would probably ensure a supply to it, under such a state from other quarters.

Many of the hills near the east shore seem to have been once cultivated to their tops. The harbour and creeks swarm with excellent fish and the shores with oysters.

*Salang* yields a very scanty revenue to its present possessors, "but under good regulations it might be rendered more valuable. The revenue may perhaps be thus computed.

Yearly duties arising on sales of tin, . . . . .	Drs. 3000
Customs and profits arising from the services } of the subject, . . . . .	„ 2000

---

Sps. Drs. 5000

Tin is the product which gives to this island its chief value, for however neglected the mines may now be from deficiency of miners, we find in Capt. FORREST's account that they yielded in his time about 500

tons of tin yearly. It may however, be surmised that several of the best mines have been pretty well exhausted.

This quantity agreeably to a calculation made by me when visiting the smelting-house, and which will be noticed presently, must have afforded to the king and the contractor of *Siam* a clear annual profit of 76,224 Spanish dollars, prices being then from 60 to 65 dollars per bahar. It is however supposed that the above quantity did not form the maximum of productiveness, and that with the long island of *Pulo Panjang*, containing, (even now) unwrought tin veins and beds of ore, *Salang* could have been made and perhaps might still be made to yield a much larger supply. The tin of *Junkceylon* is now carried to *Phoonga* where it is either sold to *Penang* traders or despatched across the peninsula for the *Siam* market.

The following remarks will be found equally applicable to the tin mining and smelting operations of *Salang* and *Phoonga*.

The Chinese are the only people employed by the Siamese in the smelting of the ore at their various tin mines, and the former generally enter into a contract for a period of a year, at a stipulated rate.

The charges for mining, smelting, &c. stand thus for *one bahar*\*.

1.	Price paid at the smelting house for ore,.....	19	20
2.	Charges for furnace and 6 men at $\frac{1}{2}$ dr. per day,	1	50
			<hr/>
	Prime cost, ..	20	70
3.	The king takes at first, .....	24	0
4.	Ditto ditto ditto on the sale,.....	2	0
			<hr/>
		26	0

Total cost to the smelter†, Drs.....	46	70
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The operation of mining is quite speculative, but on this account it has greater charms for the natives who require excitation of mind to disturb their indolent habits.

They dig pits from the depth of 10 to 100 feet. The ore is found either in a gritty form, or imbedded in a quartzose gangue. They are contented with the produce which the single shaft yields them, and rarely venture to mine laterally. This ore is then broken and washed. Although there are few parts of the island which do not contain ore,

\* A bahar contains about 466 lbs. avoirdupois, so that 5 tons are equal to 24 bahars and 16 lbs.

† Now, 1837, the average price of tin in the Straits is about 48 dollars per bahar. Consequently unless the duty should be greatly reduced the mines must be abandoned.



yet the mines at the places noted below\* are most productive as I was informed.

The furnace used by the Chinese is about three feet high and one foot and a half in diameter at top, and nearly the same below.

Alternate layers of ore and charcoal are put into it, and pump bellows are kept incessantly at work during four days *less* one night; after ten or twelve hours blowing, the tin begins to run off. The coke is extracted at intervals and is afterwards again subjected to the action of the furnace.

The produce during the above period is from  $5\frac{1}{2}$  to 6 bahars.

They then take a day's respite.

It has been stated that the government charges, on tin, an export duty of about two dollars per bahar. This, however, is only the case when return is made in specie. If in goods and provided the quantity purchased exceeds 20 bahars, the duty is 125 dollars, which is not increased although the transaction should be carried to a much larger amount. The contractor, or more properly agent receives one per cent. on the sales when the king does not direct the governor to make a specific contract, and the inferior officers of government and the chief himself must be propitiated by presents.

Eight per cent. is charged on the bartering of goods.

The Siamese possess several small ports northward of *Junkceylon*, These are *now* only visited by petty trading native prowts†.

Although *Junkceylon* is under the *Phoonga* government yet being a well known island and one where a considerable trade centered before the British got settlements to the eastward, I have preferred treating it separately.

### *Phoonga.*

On the 1st June, 1824, our captain at my request weighed and stood out of *Junkceylon* harbour.

Many majestic rocks (laid down confusedly in some maps under the name *Tover*), were the marks by which we steered, as no one on board

\* *Pittong Takre-ün, Sappam, Ban ke rim, Ban dawn, Ban na nai, Ban Saphan, Ban nayang, Ban sako, Ban thoongyang, Kamra, Kitoong, Chaloong, Pakkla, Tillong* near *Papra*, and *Phoklar*. The tin ore smelted at *Phoonga* is brought from the following places lying on the coast of *Tenasserim* above *Papra, Takoa pa, Powung*, and *Kra*. The ores from these places are considered inferior to the *Salang* ore.

† These places beginning from *Junkceylon* and at *Papra* are *Naikeemo, Phok-lawe, Bandaun, Bangkhree* on a small river, (the *Bangir* or *Baniger* of the maps,) *Nashooee, Takoa Kong, Bandala, Bangklok, Pré Koosoom, Kraá, Pookhak Takopa, Rendong*.

had ever been in this bay. These rocks from their shapes are called by the Siamese the *Yot Phoonga*, or pyramids of *Phoonga*.

Just as we approached the rugged chain alluded to, we were much surprised to observe a handsome brig lying at anchor; this harbour being if not absolutely unknown to European traders is now but very rarely visited by any. She turned out to be an American merchantman, "the *Hope of Boston*," with a small crew of eight or ten men. The commander was ashore in his whale boat, and had left his crew under a mate; when we met him afterwards he told us that his crew had taken us for a *pirate* (although we had English colors up), and had nearly given us a *salute*, when passing within half pistol shot, with all their guns and fire-arms. To this speech our captain made a suitable reply. He too, although an American himself and one too in heart, coolly said, that it was most lucky for the *Hope of Boston* that she had kept quiet, since she must soon have become a legal prize to his brig, defended as she was by four six pounders and a party of twenty sepoys, besides lascars and officers. This American trader had many muskets for sale on board, but the Siamese did not seem pleased with their quality. Indeed, they were of a most ordinary description, being hooped round the barrels and stocks, and not resting at the half cock. It is not easy to impose any spurious article of trade on the Siamese, especially fire-arms; but they will exchange their tin for good ones, although luckily not so much to the advantage of the European or American trader as to render it an object of much importance to him to bring out large supplies.

Our brig having been anchored about a mile off *Phoonga* river, I decided to go up at once to the town, being aware that should the Siamese governor take alarm he might excuse himself from allowing me to visit the town.

I therefore immediately left the ship with an escort of ten sepoys and rowed up the river. It was found to flow through a level country covered with mangroves and other jungle from which we were saluted by the chatterings of tribes of monkeys.

The tide being partly against us we did not reach the opening to the cultivated plain until after six hours' rowing. Here some Chinese junks were observed at anchor\*, and we were hailed from the custom house and told to stop. On preteuce, however, of not understanding them we pushed up to the town. The people were apparently under considerable alarm, and we were afterwards informed that the governor's son, who was acting in his father's absence, had ordered the alarm

\* From 50 to 60 tons burden.

drum to be beat on learning from the American commander, who had got up before us, that a boat manned by British sepoy was on its way to the town. Having reached an open place close to the governor's house, and supposing from the confusion observable in the crowd on shore, that our visit might be construed perhaps as a hostile one, I directed the boat to be moored, and that no one should presume to quit her without leave.

I then landed and went, accompanied by a native sepoy officer, and four privates with side-arms only, to pay my respects to the governor's son.

He received me with much politeness, but under manifest restraint and uneasiness in a hall, in the midst of which was a raised platform railed in. On this platform mats, carpets, and cushions were laid.

I accommodated myself there being no chairs as well as might be to the cross-legged position in which the chief reclined. This young man entrusted the first part of the conversation to his father's colleague, and interpreter, who were seated before him. On looking round I was at a loss to conjecture the cause of the apprehension shewn by him, for there were about an hundred armed men in the hall, their weapons chiefly spears and swords. To calm the young chief I explained to him that my visit was of a friendly kind, and to obtain some supplies of which we were in need; and I told him that next day when fewer persons would be present we might if he chose have a long interview. Confections were brought in upon brass trays; and I then returned to the bank of the river where a house had been prepared by the chief's people for my reception.

It was in the ordinary style of the country constructed of bamboos and leaves, and decorated inside with chintz hangings and couches, mats and carpets.

I had scarcely occupied this apartment when an ample dinner arrived from the governor's kitchen. It was served up on high metal trays with three and four shelves each, and consisted of pork variously prepared, roasted and stewed ducks and fowls, fish, hard-boiled eggs, plain and seasoned rice and vegetables. The desert was composed of plain and preserved fruits, custards, and confections.

The seasonings to their dishes were pepper and spices, balachong or caviare-oil, salt, and limes. Every part, almost, of an animal is eaten. When a buffalo is killed the common Siamese will prepare the skin for food by scorching it, and then beating, washing and boiling it: after these operations it is cut into thin slices and dressed. Game of all kinds, both birds and beasts, abound in the country, and all of the

former, excepting vultures, hawks, and owls, and all of the latter, except beasts of prey, are used as food.

The Siamese, like the Chinese, are great gourmands when they can afford to be so, but while the latter prefer pork to every other sort of food, the Siamese prefer venison and ducks. Some *Lau* (*samchoo* of the Chinese), an ardent spirit, formed part of this entertainment.

Crowds came to gaze at us until it became dark, when the sound of the bugle helped to scare them away.

The governor's interpreter, a native of *Coromandel*, remained until late, no doubt to sift my real intention in entering the place. With the adroitness of his tribe\* he proffered whatever his master's house could afford, not sparing the inmates of the seraglio! His people in the interim were busied in discovering what profit he could make out of the two stranger vessels.

PHRA PHAK DEE PHO THAU the young chief received me at his house next day.

I informed him that I was proceeding on a Siamese mission from *Penang*, and that I was happy of the opportunity chance had given me of informing him that the British had gone to war with the ancient enemies of *Siam*, the Burmans. His countenance instantly brightened, and with animation he proffered his elephants and attendants to convey me immediately across the peninsula†.

It was with real regret that the terms of my instructions did not authorize my proceeding to the capital, and had even a latitude in this instance been excusable, I was under obligations to enter into conferences with the rája of *Ligor*, which might have prevented my availing myself of it. But the readiness, with which the route across the peninsula was opened to me contrasted well with the suspicious temper of the wary chiefs of the more wily Ligorian.

The day after this visit I went to take leave of my hospitable entertainer previous to embarking. Having before expressed a desire to see a Siamese theatrical exhibition, I was gratified on being told that the actors and musicians were ready to commence. We proceeded to a thatched house called the *Rong Lakhanor* theatre.

The picce under performance was the *Ramakean*, a free version of the Hindu heroic poem *Rámáyan*. This kind of dramatic exhibition is termed *Len khon*.

\* Called Chulias to the eastward of the Bay.

† First, *Penang* where the *Ban Don* and *Chaiya* rivers join three stages on one elephant; thence down the *Chaiya* river in boats three stages to the sea.

From *Phoonga* to *Tü Thong* a dependency of *Ligor* on a river famous for the boats built on it, is a journey of four days.



*Phra Ram* (or *Sri Rama*) and his ape general *Houlaman* (or *Hunuman*) attended by his army of apes appear in their proper shapes on the stage. On the right was a throne for the king, and on the left an elevated space for *Thotsakan* or the "ten-headed," who was the Hindu *Ravan* or tyrant of *Ceylon*. The tyrant appears attended by his queen and encompassed by his attendants.

As masks are worn in this department of the Siamese drama the actors do not speak, but merely adapt their gesticulation to what is read by the prompter, or speaker rather, placed behind screens. The dialogue is frequently lively, but being in verse has too often a monotonous effect on the ear. A band of music was ready to supply breaks in the action and to accompany certain battle, and other scenes.

This band consisted of drums, trumpets, flutes, the metallic sticcado, musical trough, and kettle drums, cymbals and gongs; when the actresses, or, as they then happened to be, boys in girl's clothes, danced, they kept excellent time to the music, and I was particularly struck with the greater ease and elegance which the Siamese dancers possess over those of any people in Hindustan. Here sprightly figures rather prevailed, while in India it requires a dancing girl to have a very great share of beauty to prevent the spectator from becoming speedily relieved by sleep from her display of studied gesture and cramped action.

The dresses of the dramatis personæ seemed appropriate, but perhaps rather gaudy.

*PHRA RAM* had a green mask, and *SOOKKREEP* (*Soogriva*) his minister a golden one. The tail of the general *Houlaman* becomes during a skirmish the prize of the opposite party, to the infinite diversion of the audience. The policy of the Siamese government leads it to take advantage of the good nature of its subjects, and in gratuitously admitting them to such amusements, makes them willing to forget for awhile in mirth and song the miseries they endure from the unmitigated tension of its rule\*.

We left the theatre much gratified at the novelty of the whole performance, and on my return home I found that a sumptuous dinner had been sent by the young chief for myself and party. But perhaps he had not considered that Mussulmans and Hindus would not dare to touch the viands he had sent. No doubt they were discussed by his own people afterwards.

The dinner consisted of the following dishes: a half grown pig roasted whole, several ducks and fowls stewed, hashed and baked, stews of various kinds, a large tray of preserved fruits, including dorians, &c. cus-

\* Under the head poetry will be found some further notices on the subject.

tards and fresh fruits ; neither coffee, tea, milk or butter seem to enter into the common fare of these people. Butter they never make ; milk is seldom used in its plain state ; and tea is a luxury confined to the chiefs principally. They dress their food with hogs' lard.

The chief positively refused to receive any present from me for his attentions, but I sent some suitable ones to his father on a subsequent occasion.

*Phoonga river.*

The east branch is said to be the largest, but the west branch is that most frequented. I was prevented from surveying the former by our accidentally missing our direction in returning, and pursuing the branch by which we had ascended. The windings and creeks of these rivers are so intricate that it requires a long acquaintance with them to render them familiar. The sketches of the valley and the pyramids will shew better than description can the nature of the country. *Phoonga* lies in an oblong plain or valley formed by two ranges of rocky hills which approach each other very closely at the north end, but less so on the south. The outlet to the north is therefore very narrow.

The river enters through this opening, and then winding prettily down the valley at length enters a tangled forest of mangroves and other trees, amongst which it finds its way to the sea.

The influence of the tide extends higher than to *Phoonga*, but at low water a ship's boat cannot well ascend beyond the place where we landed close on the town.

Its breadth, or rather the breadth of its bed opposite the town, varies considerably but may be stated on an average at thirty yards.

Its banks on the sides opposed to the force of the current, especially on that towards the town, are steep, and in some places ten feet high, but at and below the custom house they are low and covered at high tide.

The valley is about three miles in its extreme length, but the breadth is not more than two miles at the widest part, and the average may be given at three quarters of a mile.

The soil is chiefly a clay mixed with a reddish earth, and seems fertile. The greatest part of the valley is occupied by cottages with gardens attached, the rest by rice fields and pasture ground for buffaloes and a few oxen.

Fruits are very plentiful, especially the dorian. They were in season when we were there, and every house having a supply, the air was most strongly *perfumed*.

The scenery is peculiar and picturesque, and were the banks of the

river dressed and improved would be highly so. The towering rocks, somewhat fined down and softened in their rude features by the shrubs which cling to them even where overhanging their bases, produce an agreeable contrast to the mildness of the landscape below. In one place on the east side a chalky cliff obtrudes itself; I attribute the chalky appearance to the agaric mineral, which seems to be abundant in these rocks, and which oozing from their crevices produces this singular effect. The river itself washes the base of the limestone precipices lower down which are seen to great advantage while sailing up.

The dip of the strata of the most northerly of this range was to the south, but behind the town on the west side is a rock the strata of which are regular and horizontal.

The climate is rather warm during midday, but the mornings and nights are remarkably cool. The sea breeze reaches the town sometimes, when it blows strongly.

The town does not consist of more than 70 houses, as the population is found principally in detached cottages: about 30 of the above number belong to Chinese settlers. Their houses are large and convenient, and are regularly built so as to form a street. The house of the chief is a little larger than the rest, but has scarcely any exterior decoration and is formed of wood and other light materials. The hall is of wood, carved in some places. These are inclosed by a palisade of planks and stakes.

On the south of the chief's residence is the Chinese tin smelting-house where one furnace was employed.

From such information as was collected by me there, it would appear that the population, independent of Malays, of this place may be estimated at six or seven thousand souls. There are about six hundred active Chinese in this number. Two thirds of these are *Macao* men, who are considered by the natives both here and at *Penang* as the most troublesome class of Chinese emigrants. Several hundreds of Malays are interspersed in the creeks about the mouth of the river. The Siamese do not permit many of them to stay near the town.

A great portion of this population is employed during the dry season, which is half the year, at the tin mines. They return during the other months to cultivate rice.

The chief sends as many Siamese to the mines as he pleases, or can dispense with, and while there they receive provisions *only*. The ore which they dig is sold to the Chinese contractor, and the profit of it goes to the chief. The ore is brought down either on elephants or in canoes, which can find their way two or three days up beyond *Phoonga*.

The Chinese miners, however, are not taxed. Indeed the Chinese always enjoy privileges under the Siamese government, which are denied to the natural subject. They are exempted from the duty imposed on every Siamese of serving the state when called on, either in the capacity of soldiers, artizans, or day labourers, and they are left at more liberty to enjoy what their industry produces than the native is.

The reason is obvious :—the Chinese, independent of their belonging to the dominant nation to which the Siamese pay tribute, are a more intelligent, ingenious and laborious race than the Siamese, to whom also they have the art to render themselves absolutely necessary, and as the religious institutions of both people are free from the unsocial restrictions of caste, they assimilate easily together. We may likewise suppose that the Siamese would not like to irritate a class of men who are so numerous in all their towns, and who have come from a country the supremacy, as just observed, of which over Indo-Chinese nations they acknowledge.

Although the chief of *Phoonga* takes advantage of the power given him and enriches himself at the expense of his subjects, yet his government is not so oppressive as that of the rája of *Ligor*. His people also are more attached to him, than those of *Ligor* to the latter, or in other words do not hate him so violently as the Ligorians hate their prince. The difference shewed itself in one instance. In the rája's country every article supplied for my table was extorted from his subjects, but at *Phoonga*, the chief bought out of the bazar all the provisions. &c, he sent to me.

The females at *Phoonga* secluded themselves more than those at *Salang* did, which I attributed to their own modesty, for jealousy is not a characteristic of the men in *Siam*. Women in this country are allowed much freedom ; but it may be questioned whether they would not willingly part with a large portion of it to get rid of the drudgery it entails. The obligation which the men lie under to serve the state during a certain number of months in a year according to circumstances, throws the labor which they ought to perform on the shoulders of the women. These are therefore driven to the necessity of subsisting themselves during the absence of their husbands ; they prepare the rice-fields, plant vegetables, and attend to the loom, or to keeping of small bazars.

The governor of *Phoonga* has two associates. His revenue is derived from the available labor of his own private trade, and perquisites derivable from transactions of foreign traders at his port. He has three China junks which trade to *Penang* ; these carry to that island



tin, rice, and small articles of native exportation, and return with cloth, chintzes, glass ware and other manufactures.

He pays no regular sum to the emperor, but at the expiration of every three or four years he sends, or takes a valuable present to him. The emperor of course receives all the profits that accrue from the sale of tin, the governor making his on the *ore* sold to the smelter.

*Phoonga* swarms with priests. They have four monasteries, but no temple deserving of notice. I visited the principal *Wat* or monastery early one morning. The superior, a man of eighty years of age by his own account, received me very politely. He seemed to think it requisite to account for the mean appearance of their sacred edifices, by observing that the materials had been collected for the constructing of others, but that the constant dread they were in of Burman invasion prevented them from carrying their intentions into execution. He then complained of a disease to which he was subject and asked me for some medicines. His complaint however being the irremediable one of old age, consolation was the only relief which could be offered.

The Siamese are very fond of European medicines, and like several eastern nations fancy that every white man is a physician. This convent seemed to be a hospital for dogs, which from the smallest to the largest size overspread the court, scarcely leaving room to walk. The Siamese are forbidden to destroy life, which may account for this preposterous kindness. From what I observed it would appear that in *Phoonga* there is at least one priest for the cure of every hundred souls! But the poor people do not benefit much by their advice. If they assist in daily filling the brass jar or *Băat* which the *Chaukoo* carries about to receive contributions, and make a few periodical offerings at the shrine of Phra Phoot or Buddha, which are afterwards transferred to the houses of the priests, they fancy they have amply fulfilled the duties of their religion; and leave the priest to repay themselves by prayers offered up either for success, or to avert some expected calamity. The priests here had some Bali books which few of them comprehended; most of them can read such with about as much advantage to themselves as the generality of Mussulmans in Hindustan do the Koran.

Refreshments can be had here on reasonable terms, such as poultry, hogs and fruits.

They have a few cattle (bovine) but they were unwilling to dispose of them.

They have many tame elephants. The chief gave me the use of his while there, and also of a small pony called a *horse* which he had got from *Penang*.

The exports\* and imports at *Phoonga* may be thus stated.

*Exports*.—Deebook or tin, 600 bahars, and of which an indefinite number of bahars are sent to *Siam*.

2. Kra tau or tortoiseshell, which is brought from the *Lancavies* and other islands in small quantity.

3. Rang nok or edible birds' nests.

4. Nga chääng, ivory.

5. Khau san, rice.

*Imports*.—Fine English long cloth (white) about 80 cubits long and 2 or  $2\frac{1}{2}$  broad.

2. Superfine scarlet broad cloth.

3. English chintzes, 7 cubits long, 2 cubits and 8 inches broad.

4. Bengal ditto.

5. Ditto white long cloth 40 cubits long, 2 cubits and 3 inches broad.

6. Baftas, 24 cubits long, 2 cubits and  $1\frac{1}{2}$  inches broad.

7. Madras moreis, 18 ditto long, 2 and 8 inches broad.

8. Nagore gaga moreis, 70 cubits long, 2 cubits  $2\frac{1}{2}$  inches broad.

9. Handkerchiefs 8 to a piece.

10. Carpets.

11. Bengal velvets 24 cubits long, or 40 cubits long, 2 cubits broad with border.

12. Occasionally a box or two of opium can be sold here; the sale of this article may be increased by improper means since it is forbidden to Siamese.

13. Chrystal ware, cutlery, &c.

These exports and imports are applicable to other Siamese ports on this coast. The common duties on mercantile transactions are here eight per cent. besides the native agent's fees which are one per cent. (although he will try to charge two or more); besides if bales of goods are brought separately on shore the chief claims on their being opened one piece of the goods contained in each. If many bales are opened at once then the charge is the same as if only one had been opened. This regulation is perhaps to induce the merchant to bring his goods quickly on shore. If elephants are sold the agent receives  $2\frac{1}{2}$  per cent.

In small transactions not exceeding five or six hundred dollars, duties are not exacted. The chief since I was at *Phoonga* has shewn a disposition to diminish these duties to encourage trade with *Penang*.

The chief and his associates together with inferior officers expect

\* Deeboak, is properly a generic term for metals, but here *tin* is hardly known by any other name. *Takoa* is the specific appellation.

presents after the transactions have closed. But it will be to the trader's advantage to make a handsome present in the first instance.

In all Siamese ports the foreign trader must lay his account with experiencing vexatious delays, and trouble arising perhaps more out of the complicated nature of the forms and charges than from their being actually burdensome.

Rice is sold here at the rate of twelve gantangs per Spanish dollar, but both at *Salang* and at this port it is of an inferior quality to that at *Keddah*. Their mode of preparing it for the market is also calculated to diminish its value. The grains are seldom whole and for the most part broken into crumbs. They cultivate all along the coast large quantities of the *Khau Neeau* of the Siamese, or Malayan *braspooloot* or *Oryza glutinosa* of РОХВ. which is well adapted for the culinary purposes of the natives, particularly for confections.

We returned to *Trang* on the 7th June, and having fired a gun, the signal agreed on betwixt the Siamese chiefs and me, three envoys who had just arrived from *Ligor* came on board. The head envoy KHOON AKSON, I had known at *Penang*. These men after a conversation which lasted for four hours set off for *Ligor*. They said they had travelled in coming day and night, on their elephants, and had accomplished the journey from *Ligor* in three days and *one* night. The Siamese compute journeys by nights. Runners can perform it in four days easily.

18th June. The mission debarked on a high neck of land lying on the west bank of the river. The tents were pitched close to the temporary house which had been erected for myself by the *rāja's* people. The schooner was now despatched with letters to *Penang*. Exercise was enjoined to the escort and people not only to keep them in health, but on the alert, as the temper of the Siamese had not been perfectly ascertained. Indeed the secretary to the government at *Penang* acquainted me by a secret despatch that people from *Ligor* had informed him that it had been debated at *Ligor* whether the mission should be cut off either by force or by poison. But I put little faith in this report as I discovered that the principal reason why the Ligorians had neither allowed the mission to proceed to *Ligor*, or had come down in person to receive it, was his having just before been placed in communication with two colleagues who had arrived from *Bankok* to watch his acts. The reported danger appeared to me a fabrication of the *Keddah* people; and small as our escort was, the party of one hundred armed men who had been sent to keep a look out on us, would have been easily disposed of in case of treachery appearing. These

men had a few muskets and swords. They practised singly occasionally at a mark, using a rest, and that very fairly. When they saw the sepoys also practising, but firing balls by sections, the novelty of the exhibition seemed to have a due effect and deterred them from any future display of *their drill*.

24th. Until this date we had boisterous weather, volumes of clouds rolling in from the sea and partly breaking in showers in their passage to the hills. About eleven o'clock of this day twenty boats were descried descending the river. These dropped anchor close to our camp but kept a perfect silence, and the people in them would not answer our questions. This proved to be the advance of a fleet escorting the young rāja of *Ligor* who had been sent to meet me. In about an hour afterwards the sound of kettle drums announced the young chief's approach. The boat of the latter occupied the centre along with eight others, and the stern was covered by a canopy like a carriage hood. About twenty more boats were divided on the right and left wings.

The large kettle drum in the centre one, the privileged instrument of a governor of the first rank, was now struck louder and louder, and at every pause the crews of all the boats shouted at the full extent of their voices. The right centre boats were each manned by twenty sailors or soldiers (for the Siamese make hardly any distinction betwixt these two classes) dressed in coarse red cloth jackets, and the boats on the flanks had similar complements of men, but these wore blue cloth jackets. In general red is the color used by the near attendants on, or guard of the king and his great officers; common soldiers, if they do wear any upper garments, which is not very often the case, have them of dark colored woollen or cotton cloth. The chief, being a mere child of about nine years of age, was accompanied by several nursery female attendants to take care of his person and cook his food. This boy was addressed by his followers by the titles of *Boot* [*putra* or king's son] and *chao nooe*, the little lord\*. He was carried from the landing-place to the reception hall in a handsome litter, borne on men's shoulders by means of four poles like the *Tellicherry* tonjon of India. The whole of his men who had landed, being 300, then arranged themselves in three lines, one line within the open verandah of the building and two without, and in the peculiar attitude of their nation. About one hundred of these men had muskets without bayonets, the use of this last weapon being quite disregarded by the Siamese. The rest had long swords. About one-half of the whole number had triangular woollen cloth caps, the rest were uncovered. The whole were in fact

\* He has since [1837] become a courtier at *Bankok* the capital of *Siam*.



squatted with their legs tucked under them. The musketeers with their muskets held up in front the butt resting on the ground ; the others with their swords sloped.

Shortly after the arrival of this youthful diplomatist I proceeded to visit him. The escort drew up in front of the hall with ordered arms, and after exchanging my bow with the *Bootha* I sat down in a chair which his people had purposely brought. The principal men who had come with him to negotiate for him occupied chairs on my right and left. *Bootha* was richly dressed in a fully embroidered satin or silk *phá yok*. This article of dress closely resembles the Malayan sarong and it is worn either with or without trousers underneath it. Upwards from the waist his body was naked with the exception of several massive gold chains, which with their pendent jewels, seemed almost to weigh him down ; he wore handsome golden bracelets and anklets, and he had many valuable diamond and other kinds of rings on his fingers. The crown of his shaven head was surmounted by a skull cap of gold filagree of handsome workmanship. This covering is called *mongkoot* which is a Bali word signifying a crown, and which is applied in historical works to denote a diadem.

So impatient was the boy to see the sepoys perform their exercise, that despite his council of grave men, and before other business could be begun his curiosity required to be satisfied. The crouching troops of the Ligorian had thus an opportunity of witnessing, and with manifest surprise, the precision which discipline bestows. It is doubtful if a Siamese soldier can hold himself erect. A slavish submission to their rulers has physically affected the whole of the male population, and a slinking, slouching gait is their most prominent outward characteristic.

After the conference I presented the youth with a few articles of British manufacture and two globes, (celestial and terrestrial.) He was very desirous to learn the use of these last, but there was no time for this operation. The Siamese are pretty expert according to their own fashion at map-making, although their geographical ideas do not wander far to the south or west of *Siam*. Some of their plans may be reduced to some degree of consistency and precision by adapting a scale of time to them, as the Siamese carefully note the time occupied in travelling from place to place.

After the conference *Bootha* shook me warmly by the hand, and took his departure in the same order as he had arrived.

It is needless here to enter into a detail of the conferences which took place. It was proved that the Ligorian would not adventure on his own responsibility to side with the British against the Burmese, and as

I saw that the time would be gone by, wherein co-operation could be useful before the fiat of the government of *Siam* could be obtained; and not deeming it prudent to act any further lest that haughty court should consider a compliance with the proposition which had been made to it as conferring an obligation, I returned with the mission to *Penang*.

*Penang*, 1824. *Revised*, 1837.

II.—*Epitome of the Grammars of the Brahuiky, the Balochky and the Panjâbi languages, with Vocabularies of the Baraky, the Pashi, the Laghmani, the Cashgari, the Teerhai, and the Deer Dialects. By Lieut. R. LEECH, Bombay Engineers, Assistant on a Mission to Kâbul.*

## 2.—GRAMMAR OF THE BALOCHKY LANGUAGE.

This language is spoken throughout all those parts of the country called *Balochisthân*, that are either independent or owe such fealty only to the rulers of the plain, as does not bring them down from their hills for a long enough time to have their language corrupted into *Jathkî*, by which name they designate the *Sindhî*.

### Alphabet.

The peculiarity consists in the frequent recurrence of the Arabic *thâl* ث the English *th* in the word *those*, and the Arabic *ṭhâi* ط the English *th* in the word *think*. The scheme of alphabet adopted is the same as that employed for the Brahuiky in the last number.

### Gender.

There is no gender in Balochky ; for they say,	
Tharà chiai bachhai astain ?	Have you a son ?
Tharà jinkai chiai astain ?	Have you a daughter ?
A' mard àkhta.	That man has come.
Ai Barochànî àkhta.	This Baroch woman has come.

### Number.

Neither is there any number in the substantives even in those that end in a vowel, which are few in comparison with the whole, for they say, *yuk kardyâ*, one hilt, *do kardyâ*, two hilts.

### Case.

#### Declension of a compound noun.

	Singular.		Plural.
Nom.	Juwiñ mard	a good man	The same.
Gen.	Juwiñ mardî	of a good man	
Dat. & Acc.	Juwiñ mardàrà	to a good man	
Abl.	Juwiñ mardà thai	from a good man	

### Comparison

is made in the following manner ;

Ai sharrind	This is good
Ai gu î sharrind	This is better than that
Ai aj durustàn sharrind	This is better than all

## 1st Personal Pronoun.

## Singular.

## Plural.

Nom.	Ma	I	mà	we
Gen.	Mi	my	mî	ours
Dat. & Acc.	Manà	me	màrà	us
Abl.	Aj man, iman or manthai	} from me	aj or ach mà, or maràthai	} from us

## 2nd Personal Pronoun.

## Singular.

## Plural.

Nom.	Thau	thou	shumà	you
Gen.	Thi	thy	shumî	yours
Dat. & Acc.	Tharà	thee	shumàrà	you
Abl.	Aj thau or tharàthai	from thee	aj shumà or shumà thai	from you.

## 3rd Personal Pronoun.

## Remote.

## Singular.

## Plural.

Nom.	A'	that	
Gen.	A'hin	of that	The same.
Dat. & Acc.	A'hinyàr	that	
Abl.	A'hinyà thai	from that	

## Proximate.

## Singular.

## Plural.

Nom.	Ai	this	
Gen.	Aishî	of this	The same.
Dat. & Acc.	Aishiyàr	this	
Abl.	Aishiyà thai	from this	

## Reciprocal Pronoun.

## Singular.

## Plural.

Nom.	Wath	self	
Gen.	Wathî	of self	The same.
Dat. & Acc.	Wathàrà	to self	
Abl.	Ach wathiy	from self	

## Cardinal numbers.

One	yak	Fifteen	phànzdah
Two	do	Sixteen	shànzdah
Three	shai	Seventeen	habdah
Four	chyàr	Eighteen	hazhdah
Five	panch	Nineteen	nozd
Six	shash	Twenty	gîst
Seven	hapt	Thirty	sî
Eight	hasht	Forty	chhil
Nine	nuh	Fifty	panjàh
Ten	dah	Sixty	sî gîst
Eleven	yazdah	Seventy	sattar
Twelve	duàzdah	Eighty	chyàr gîst
Thirteen	saiuzdah	Ninety	navai
Fourteen	chàrdah	Hundred	sath

## Ordinal Numbers.

Walîn	first	Sainwin	third
Douwin	second	Chyàrwin	fourth

*Points of the Compass.*

Uttar	north	Roshasàn	east
Dakhan	south	Roshaisht	west

*Interrogatives.*

	<i>Singular.</i>		<i>Plural.</i>
<i>Nom.</i>	Ki	who	
<i>Gen.</i>	Ki	whose	The same.
<i>Dat. &amp; Acc.</i>	Kiyàrà	whom	
<i>Abl.</i>	Aj ki or kiyà thai	from whom	
	Chi,ai	what ?	

*Verbs.*

The verbs will be found dispersed through the early part of the dialogues, or in a future Appendix, as it will require considerable time and labor to collect tenses from men who have never heard of words spoken except in sentences, and who would be confused if asked how to express "thou understandest" in their language. This tense can only be elicited by asking the expression answering to a whole sentence in which that tense is contained, as "thou understandest not what I say"—and as it would be time lost, after having ascertained the verb to reject the rest of the sentence, I have left them to be extracted from the dialogues.

*Vocabulary of Nouns.*

Naryàn	horse	Shakhal	sugar	Barochàni	a woman
Màthin	mare	Bhyàn	a colt	Ambrà	} companion
Naghàn	bread	Kurti	a gown	Ambal	
Aph	water	Galaim	a carpet	Anishagh	eyebrow
Rosh	day	Khard	rug	Làph	belly
Shaf	night	Darmàn	powder	Khond	knee
Laidou	} a camel	Darmàn	wine	Sharosh	elbow
Hushtar		Kàriga	a bullock	Cham	eye
Dàchi	} a female camel	Gokh	a cow	Nazik	near
		Raim	grass	Dìr	far
Phàshin	a he-goat	Loghwarà	wife	Khiswà	language
Buz	a she-goat	Ikhwà	a maid	Safaith	white
Juwìn	good	Molid	a slave girl	Siyan	black
Gandag	bad	Pith	father	Sohar	red
Zà	abuse	Màth	mother	Zard	yellow
Gwàth	wind	Bachh	son	Khatolà	bedstead
A's	fire	Jannik	daughter	Phut	hair
Dàr	wood	Gwàr	sister	Ksàn	small
Dard	pain	Bràth	brother	Dràj	large
Zaham	sword	Khàrch	knife	Dàl	stout
Dhàl	shield	Gul	{ an ornament on the shield	Jo dō	thunder
Thir	bullet			Girokh	lightning
Vhāv	sleep	Asin	iron	Srumbai	hoof
Shir	milk	Pital	brass	Maizagh	urine
Naiwagh	butter	Post	leather	Riyagh	excrement
Moshin	ghee	Nukhrá	silver	Washi	molasses
Grandim	wheat	Thangon	gold	Pat	silk
Jav	barley	Hit	thin	Kardya	hill
Phindokhy	beggar	Gwand	short	Zhukht	scabbard
Làghar	poor	Gudh	cloth	Kupàs	cotton
Shuthà	gone	Phàll	turban	Phim	wool
Akhtà	come	Bing	dog	Mid	goat's hair
Whàd	salt	Bàz	much	Zahar	angry

Nàhigh	fish	Khophagh	shoulder	Shàpàin	} black pepper
Làgh	donkey	Gardan	neck	mìrch	
Daiuv	face	Gosh	ear	Thúm	leek
Daf	mouth	Pàhnàd	side	Wasal	onion
Jod	lip	Khash	armpit	Haldra	saffron
Dathàn	tooth	Khunnai	hip	Dhanyá	{ coriander
Zawàn	tongue	Ràn	thigh		
Shalwàr	trousers	Phàd	leg	Sohraimìrch	redpepper
Baroth	mustaches	Piny	calf	Bandikh	thread
Rish	beard	Randh	footstep	Shishin	needle
Phoiz	nose	Darashk	tree	Kinchì	scissors
Grànz	nostril	Gaz	amarisk	Istaragh	razor
Goid	flesh	Khàn gaz	the male do.	Chi	article
Pàth	foot	Màthìn gaz	female do.	Photà	cardamum
Nàkhun	nail	Digàr	earth	Lawang	cloves
Murdà nagh	finger	Gap	mud	Wash	sweet
Ràstai	right	Phoph	dust	Hàn wagnai	raw
Chappai	left	Nokh	moon	Ask	a deer
Kammai	little	Haur	rain	Mushk	a mouse
Zahar	salt	Nodh	cloud	Chhàth	well
Zaptai	sour	Mushit	fist	Chàhàn	{ water-
Súnd	ginger	Chumagh	kiss		
Garam	hot	Anas	tear	Koh	mountain
Khargushk	hare	Jàthar	grindstone	Whàn	plate
Tolagh	jackal	Lagath	kick	Khada	saucer
Gurk	wolf	Sinagh	breast	Roth	entrails
Gúrpát	gurnál	Rást	true	Lhiph	a cloth
Rich	bear	Drogh	false	Granch	knot
Hikh	hog	Gurágh	crow	Tubi	a dive
Mazàr	tiger	Murg	bird	Gawaish	buffalo
Bholà	monkey	Raiz	rope	Hunhàn	male do.
Gwar	nipple	Sing	stone	Gindhar	naked
Siriñ	waist	Shàn hà	horn	Khor	blind
Gut	throat	Dumb	tail	Khar	deaf
Adth	flour	Littar	shoes	Gungà	dumb
Dàn	grain	Shudh	hunger	Lang	lame
Hàsh	jaw tooth	Logh	house		
Dràzh	long	Blúl	{ a ring in the	Trizàtk	{ father's sis-
Gwand	broad				
Jahal	deep				ter's son
Mazai àph	deep water	Nath	do. in nostril	Nàpo	{ mother's fa-
Thir	arrow	Mudh whá-			
Zaiha	bow-string	da	pearl	Jàn wàth	son-in-law
Jogh	bow	Náwarsh	stew	Màsi	{ mother's sis-
Laihaiph	blanket	Kaváv	roast meat	Wàd	
Phat	wound	Phakki	roasted	Rodh	sheep-fold
Maish	ewe	Gurágh	a crow	Gurand	a calf
Toto	parrot	Puppi	{ father's sis-	Khimjir	ram
		trih			partridge
Nàkho	{ father's bro-	Nàkho	{ father's bro-	Dadi	{ father's mo-
		zàkht			
Nakho	{ mother's	Wasi	{ husband's mo-	Thàn	stable
Bhàn	cow-house	Wàzhah	ther-in-law sir	Amal	{ any intoxi-
					cating drug



*Vocabulary of Verbs.*

Byà	come	Nindbi	sit down	Pat	dig
Gwaúk kapí	call	Pàdakhdo	stand	Byàr	bring
Bil da,i	let go	War	eat	Birau	go
Giri or dâr	seize	Thingdai	drink	Phàthà bi	stand
Akhisti	asleep	Whàph		Whaphs	recline
Airkí	place	shutha	he is asleep	Giri	take
Gir biyà	bring	Gir birúy	take away	Gindh	look
Shir gwash	sing	Jhan	beat	Drush	grind
Phirni	fill	Rumbà gin	run	Phirai	sprinkle
Zindagh	live	Shodh	wash	Kaji	cover
Murtosh }	he's dead	Phivni	pour out	Púr	bury
shutha }		Bozh	unloose	Phash	boil
Grai	weep	Dosh	sew	Sirbi	marry
Chaghal dàì	throw away	Shafshk	sell	Thudo	fear
Khulagh	cough	Zir gir	buy	Nangàra ba	plough
Chishagh	sneeze	Charr	walk about	Phaja byà	examine
Likhwàkh	write	Thàsh	gallop	Kalàthà	assault the
Kband	laugh	Juz	amble	mil	fort
Khar	scratch	Jir gir	lift up	Bhoraith	flee
Malagh	rub	Naiwad	stoop	Dâr	stop
Chaq	mount	Gwànth	fall	Mill	embrace
Irkav	dismount	Chakà }	cover	Laitai	open
Bast	tie	phirni }		Dhak	shut

*Vocabulary of Adverbs, Conjunctions, &c. &c.*

Maroshi	to-day	Zi	yesterday	Pàngwà	to-morrow
Nazik	near	Dir	far	Aidà	here
Burzà	there	Ni	now	Gudà	after
Darà	out	Yàma	in	Innà nadai,	no
Baigà	in the eve- ning }	Nishty ai	in front	Ai	and
Di	also	Demàshta	formerly	Nir masli	midday
A pàhṇàdà	on that side	Ai pàhṇàdà	on this side	Jhàlà	below
Burzà	above	Navaidà	always	Bukú	where

*Phrases and Dialogues.**Greetings.*

Khush durà jod hir kul hir	Are you well and happy?
Maihar bacliha biath chuk	Quite well ! sons and brothers
Chùdari dairo daimà thimidai	Children, house, and all
Hiraiṇ sangtā sajohinà shal hir bà	Well ; friends and acquaintance all well

*Greeting in Return.*

Hir lotli tharà ditho khush bitho	Quite well thank you, I am delighted to see you
Thi halk bukú	Where is your village?
A istiyà biyà	Come slowly
Airkab biyà	Dismount
Bàzai gwàkh	Is your city far (literally, a long call)
Halka rawàn	Go to the town
Thi nàm chain	What is your name?
Thi sardâr kidàm ai	Who is your sirdar
Ikhtar sàlà chikhṭar dân pidà biṭha	How much grain has been produced this year?
Walà juwàn athàn	I was well formerly

Walà thau juwàn athai  
 Walà à juwàn atha  
 Nà salim bith  
 Mà walà juwàn athún  
 Nì hino bitha  
 Walà shumà Hydarawàdh athàn  
 Walà Pathàn Baloch yàr athàn  
  
 Man Sipàithan  
 Thau Sepàithai  
 Mārà dafjathosht wārthi  
 A noukar ath  
 Mà tevgà noukar athún  
 Shumà durust noukar athún  
 Hame durust noukar athàn  
 Thou manì sipāhi bi  
 Shumà durust mī noukar biyai  
 Ai halkà juwīn guthai bigain  
 Mī pitka bāryā hamaitā jangai bi  
   thaga  
 Ais hī ghwāra gān  
 Khīwara bachha  
 Mà shāid biyā  
 Hydrabād ma ranvgān hī wakhti  
 Thau bukú marawgai  
 A bukú maravgai  
 Mà durust Hidrawād rārvūn  
 Shumà go mà juzzai  
 A gulkhantharau  
 A gulk thosht  
 Drāth koshutha  
 Naphthā hakalaksa  
 Thau kadhīn thārī khā  
 Mī biāth jangā khushtā  
 Sakhai duz ai  
 Khalāthā bhorni  
 Thī bachhār chikhta sāl bithaga  
 Maroshi sakhai haur gwadth  
 Mī jarr mīthaga  
 Ai shiyār samā naihat  
 Sī mirosh pathā sīnvkhī  
  
 Hamai khiswā maka aishyār  
   jwān na khanath  
 Samā khani nawān mārī baidi  
   ma digārā  
 Jalbāni jangokhī  
 Jalbāni phirai mand kithām ai  
 Daryā khānā chikhtarai inām  
 Mulk inām daihgo digārā  
  
 Akhisma  
 Maroshi rosh khamin sādthai  
 Zi rosh bāza  
 Marosha chikhtar mahāl wārth  
 Marosha makoha mīth bāz pidā  
   biyagai

Thou wert well before  
 He was well before  
 He has become unwell  
 We were well before  
 He has now become a coward  
 We were formerly in Hyderabad  
 Formerly the Pathans and Balochis  
   were friends  
 I will become a soldier  
 Will you become a soldier ?  
 I am afraid the dog will bite me  
 He will become a servant  
 We will all become servants  
 Will you all be servants ?  
 They will all be servants  
 Be my sipāhy  
 Be all my sipāhis  
 Good cloth is produced in this village  
 In my father's time there was a bat-  
   tle here  
 I will visit his sister  
 Thou son of a slave  
 I shall become a martyr  
 I will go to Hyderabad this moment  
 Where art thou going ?  
 Where is he going ?  
 We are all going to Hyderabad  
 Will you go with me ?  
 He will run away  
 He has run away  
 He has gone out  
 He has fired a musket  
 When will you come back ?  
 My brother died in battle  
 He is a great thief  
 He destroys forts  
 How old is your son ?  
 To-day much rain has fallen  
 My clothes have got wet  
 He is not conscious  
 In three days the boundary will reach  
   (literal) us  
 Don't mention such a thing, he will  
   not be pleased with it  
 Take care in front the boat will  
   strike  
 Who are the Jalbani's enemies ?  
 Who is the head man of the Jalbanis ?  
 What jagire has Daryā khān ?  
 The whole of this city and land is in  
   fief  
 Don't delay  
 The heat is less to-day, it is cool  
 Yesterday there was much  
 How many times do you eat a day ?  
 How much wool is produced in the  
   mountains in a day ?

Matharà inàmàdhyàu thaumanà  
 chikhtar ghodou diyì majangà  
 Mì pàth khisgatha ma kapthawa  
 Ai mardon makohà miri aishi yà  
 chaitarà púrùu  
 A halk nazikhai  
 Maroshi sakhai pandaikhthou ma-  
 thaga  
 Whàvā kiptha  
 Rumbìzir juz  
 Darmāu sakhyai tikhin  
 Nashà wādthi nì khaphthiyain

Ai naryānāpi bahà bāz ai  
 Mì dast masarrà dāsttish  
 Katolà sarrà mī sirāndhi i airkaiu

Baloch go zahamà konikhà midì  
 Gandim bahà chikhtar chotadwā  
 rupiyā  
 Mānja chotadwā bāz sīr ān ādthi  
 Havaidā marda mīth khaptiyaiu  
 Tani bukhto khapt  
 Gudhār walath bukhto khapt

Pagar ākht  
 Zaham manā mākhta buratha  
 Ai madī rangā giudh  
 A rāh ānjo aiu  
 Ai mulakā hākamānī sakhai  
 zūrath  
 Brāthānī miqag juwān nin  
 Hanwā mardā khiswā āph na dā-  
 tha hawā mard baikār ai

A mard gwasto shutha hawā mar-  
 dā kikār  
 Rindhān Chāndyāu mouu thān sang  
 na dāthatha  
 Hamai kithā rastar aiu  
 Hamai kithā chī aiu  
 Katkī hawe mulkā man ākhta hawai  
 mardunā manā phajaha nyādth  
 Tufaki thīr mana mādākhtha

Mi mard soudāgārīā shutha

Thau manā sath rupiyai dai i ma-  
 gothau niyāu  
 Manā sikh mākhta phalogā  
 Mathi daihār domb bāzau

Mā Balochiyā māniyār chāi asha

Wali zāl zindagai dohami khanag  
 hukam astai  
 Phad chāi, nai

If I give you a fief, what force will  
 you give me in time of war?  
 My foot slipped and I fell  
 How can we bury those who die in  
 the mountains?

That village is near  
 I have travelled far to-day, I am  
 tired

I feel sleepy  
 Make haste and run  
 The spirits are very strong  
 He is intoxicated with drink and is  
 lying down

Is the price of this horse high?  
 My hand is burnt by the fire  
 Put the pillow of the bed under my  
 head

The Balochis fight with swords  
 How many chotadas of wheat for a  
 rupee?

How many seers in a chotada of flour?  
 There is a man's corpse lying here  
 The surtout string is loose  
 The plaits of the clothes have come  
 undone

The perspiration has come  
 I have got a sword-wound  
 Look what the man is doing  
 That road is difficult  
 The oppression of the rulers is great  
 in this country  
 It is not right for brothers to quarrel  
 A man is not worth any thing that  
 does not (water his words) keep  
 his promise

The man has started, overtake him

The Rindhs and Chandys don't in-  
 termarry

What animal is that?

What insect is that?

When I came into this country the  
 people did not know me  
 I have been wounded by a musket-  
 ball

My husband has gone on a mercan-  
 tile trip

I would not accompany you were you  
 to give me a hundred rupees

I have become home-sick  
 Are there many minstrels in your  
 country?

What is "māny" (bread) called in  
 Balochky?

Is it lawful to marry a second wife  
 when the first is alive?

Why not?



Balochani chitarai guthan khanath  
 Sarā sari gath gardanā phashkma  
 pātha shalwār  
 Ai handa zifānā soṇo hinnai

Adai chho biyā  
 Thau go washai āph warai ki na-  
 horgai āph warai  
 Manya pā rupiyā chikhtar phanji  
 kaphantha  
 Maunthanā midhaga  
 Nimāz māli rawān

Thau wathī daihmā āhriyā gindh  
 Thau chih mandai i  
 Guthā wathī jān sarā phirai  
 A chhai, rā ā sarbarā  
 Sāhaib baidi ā phalawā maravya

Sāhū zorā mad i khokho dor bi  
 Havai jwain mandai ki wah wah  
 Hawānkhtar ki sahaib dā hawānkht-  
 tar na girān  
 Hamai sandūk girān ai  
 Girān ai ta zarra thī  
 Hawēnkhtar manā gālimiyā  
 Ai bār sawakk ai  
 Hathin mā tharā ditha manā samā  
 khapht kithau juwain Baloch, ai  
 Go mā chathara mā kap  
 Mī brāthā go mā radi kitha

Ai mard rav khohā sardār salāmā  
 ai madāra rāl bith

Zi manā whāvā gipthaga maroshi  
 nah  
 Hamai digārā drashk zithai ruthi  
 Ni Shāh wāhi mā mokalanuū  
 Ma hamai hitāb durustā laitaint  
 Gwāth bāz mākthā  
 Ai halk sunya bitha  
 Rosh airkaphto navāshān ai  
 Adthā drush naghanā zithai pash di

Mitha chikhtar zāt bitha mā khohā  
 hālā di  
 Yakai savaith, dohmi sohar, simi  
 shānk, chārmī, savz

Chhid khayā bastaga  
 Ambalā bastodāthagapa zahīrāthi  
 khī bandi  
 Thau phadchai girai i thau ganda-  
 gai kārai kutha tharā kushān  
 A madā wathī butār jatha  
 Thau haivai tharai Applātūn

How do the Baloch women dress?  
 A sari on the head, a phashk on the  
 neck, and shalwars on the legs  
 There is no beauty in the women of  
 this country  
 Holla! come here  
 Do you drink water with sugar or  
 water alone?  
 How many phanjis are there in one  
 rupee?  
 They quarrel among themselves  
 I will go in the morning—lit. time of  
 prayers  
 Look at your face in the glass  
 What man are you?  
 Put the clothes on  
 He is below, he is above  
 The gentleman's boat is going to the  
 other shore  
 Sāhū don't be rough, my ribs ache  
 Oh, oh, he is such a fine fellow!  
 I will take as much as the gentleman  
 will give  
 The box is heavy  
 It is heavy, and must have money in it  
 I don't require so much  
 This load is light  
 When I saw you I conjectured that  
 you were a good Baloch  
 Don't joke with me  
 My brother practised deception to-  
 wards me  
 If a man were to go into the moun-  
 tain to visit a chief, would a pas-  
 sage be granted him  
 Yesterday I felt sleepy, but not to-  
 day  
 Trees grow quickly in this soil  
 God be with you, you have your leave  
 I have looked over the whole book  
 The wind has become strong  
 This town is desolate  
 The sun has set, it is dark  
 Grind some flour and make some  
 bread quickly  
 Are there many kinds of wool pro-  
 duced in the mountains, tell me?  
 The first kind is white, the 2nd is  
 red, the 3rd is black, and the fourth  
 green  
 Who has tied those cories (shells) on?  
 My lover has tied them on in fond-  
 ness, who else would do so?  
 Why are you weeping, you have done  
 something wrong, I will beat you  
 That man committed suicide  
 Are you a kind of Plato?

Ai thi go ma goza na di  
 Zi thau manà kisso gwashtliaga  
 tharà hawàn kisso gir aiñ  
 Hawai mung Kithàn boli akha nag  
 aiñ  
 Khuthà zàth hawai Kisawa  
 Gàda biṭha  
 Aph garam biṭha ni garathagi  
 Mard giraigh jwàn nai zal giraigh  
 kàr aiñ  
 Zurthàñi jwin avo anth  
 Balochànì hidthi hidthi doshañ

Panjhi ai hawai Khunar bàz anth

Raiz maludaga  
 Balochàn aph taragh samà nai  
 Balochàn ma wathì mulakà mahi na  
 warañ  
 Maroshì mà tamàshai diṭha Kacho  
 aiñ gandagai gojd hadsainà wad-  
 tha daryà bharrà mudtho khap-  
 thaga

*Lays in Balochky*

*1st.*

Kidd Gabol Gàdhi Pàchàlo

Talbur Baiwàkai mari  
 Durust ghulàm i chàkarì  
 Bànadi bashkà thaga

Dath nazurth Hadhaiyà

Nothà ki guzith savzaiṇà  
 Bilaizàryàn bàzainà  
 Chammà ni sarì gwàzainà  
 Man phathau tàsar  
 Baid cham chiragh pàraiwar

Syàmà chotho drashkabar

Kison chhobitha  
 Drashka I'sai àkhtaga chhar ànà  
 Mulko Kichahàn golànà

Barì diṭhai mabiwànà  
 Chuchú zindagai baidànà  
 Askko wari i mànà  
 Baria jawàv therañthà  
 Isai dandamànai nishit  
 Rab Kuristhàn diṭha  
 Drashk shair digàrà rusta  
 Gafshai bàngwai sarzurtha  
 Nair moshai baraiṭbur biṭhà  
 Drashk dabaighà lâl biṭha

Don't be so arrogant  
 Do you remember the story you told  
 me yesterday?  
 What birds are those making that  
 noise?  
 God knows such a thing  
 A boil has appeared  
 The water is warm and effervesces  
 It is not proper for a man to weep, it  
 is the practice of a woman  
 Juwari is very good roasted  
 The Baloch women do fine needle  
 work  
 How many "ber" berries for a pan-  
 jhi (pais)?  
 The rope is shaking  
 The Balochis don't know how to swim  
 The Balochis don't eat fish in their  
 own country  
 I saw a sight to day, three Kachos  
 lying dead on the river bank who  
 had eaten rotten flesh.

*Translation.*

Kidds, Gabols, Gàdhais, Pàchàlos Tàl-  
 poors  
 and lawless maris  
 all were slaves of Chàkar, (Rindh),  
 And he gave them with (his sister,)  
 Bànadi  
 as a dowry to Hadheyo, (Rindh his  
 son-in-law) who refused to take  
 them.

*2nd.*

Ye clouds that make green,  
 don't rain too much;  
 or mine eyes won't close all night;  
 I am thine oh crowned head;  
 the eye light and preserver of the  
 world,  
 with snake locks like a branching  
 tree.  
 The story of the tree is this:  
 I'sà came as he was travelling  
 in the quarters of the surrounding  
 country.  
 He saw Barì in the desert—  
 tell how do live without grain,  
 whence do you eat truly?  
 Barì answered him:  
 I'sà sat there for a moment;  
 He saw the power of God.  
 A tree grew out of the ground:  
 At morning prayers it grew up;  
 At midday berries grew on it;  
 In the afternoon they became red  
 ripe.

Drashk barkuno dubithà  
Juwàn ai mardamaiw hadthbitha  
Chhoka gonawayàn bitha  
Hisi chhotwà hamchobà

Barkat Ali juwàn marda  
Singo koh àphbitha  
Railai zàhir darbaishà

Divànbyàri Kalamowà

Yàd kanà pîr nou bahàrà

Hardamai malak sachàrà  
Shàha mardàn kiddagàrà  
Panchtan pàk chàr yàrà

Pàkhar sher potra wàrà  
Bai Masid Rostamàrà  
Saringi dàwà garàrà  
Jumlai shair potrawàrà  
Sà Bahràm nar mazàrà  
Kà nishta ba karàrà  
Ghodai vai zudta Mazàrà  
Kadú gulàthai zwàrà  
Sinjku thant tâzi bishàrà  
Rahzani nàm thawàrà  
Rauth Kachi digàrà  
Ruthai baggai bai shumàrà

Adthà shaharàn ba karàrà  
Bàrkutha thir dàrà

Gul Mammad Bràhui suywàrà  
Akht sathî gwar Mazàrà  
Di manai bagg katàrà

Gwasht daraihàn dàwaidàrà  
Phok di sàri jamàrà  
Gosh Gul Mammad paihawàrà

Chandyàn honi bishàrà  
Bhorai towàrtha Mazàrà  
Gwasht Gul Mammadà sachàri  
Gashda Bahràm Mazàri  
Hinbarà baggai Guzàri  
Haisarai burr Mazàri  
Jath baggàdà salàmà  
Dàha gatha shair kasàvā

Dairvi khàn navàvā  
Mànawa palk ghadiyā  
Tabal waj shāthiyā  
Mir chadthā wathariyā  
Gothuman brāthariyā  
Zor Sultān Arafīyā

On one branch two were produced  
fit for men of rank to eat.  
As it happened to him,  
by my head and locks may it be so  
with me.

Ali, you are a hero,  
in rocks you get water :  
The wanderings of the Darvish are  
these.

Gentles my story is finished.

3rd.

Let me call to mind the Pir of the  
new spring  
always the true master  
the king of men ; the producer  
Ye five pure-hearted and ye four  
friends,

Be behind the lion's son  
Be both ye Marids and Rostamaris  
Ye Sāringis takers of revenge  
Be all behind the lion's son  
The noble Bahràm the male lion  
In his kingdom sitting at ease  
The Muzàris mounted their mares  
Kadú with a few horsemen  
They all saddled their mares  
His fame for theft was great  
He went to the Kachi country  
And brought away the camels with-  
out number

And came harmless to his city  
They divided lots by arrows and  
straws

The noble Gul Mammad Brahui  
Came with many to the Muzàrà  
Saying give me back my strings of  
camels

Daraihàn the revenger said  
I will not give them while I live  
In your ears I tell you Gul Mammad  
plainly

Many enemies many  
We Muzàris have bound and ate  
Gul Mammad the true said  
Bahram Muzàri shall hear  
I will either take camels in return  
Or the Muzàris shall have my head  
By the Jāths he sent a challenge  
Who petitioned to the assembled  
lions

The Khàn and Navavs of cities  
Quickly in a moment of an hour  
The drums beat joyfully  
The Mir mounts himself  
With all his brothers  
By the power of Sultan Arefiga

Bagg nilà gonbathiyà

Darshanai shîr pharagànai  
Masarà bat hamalàni  
Sa ha vai Mir mansawànai  
Basth hatyâr kimatànai  
Zin git shihanàni  
Nàzaha bor nàrahanai  
Sanj thàsa dorawani  
Bithai nâl gwànk ukahànai

Wanjân dil pijàni  
Ziu git pàhalwàni  
Laikhai sî giz Mazàrai  
Zudtwai tájai tàrà  
Mir Masaraiba subkàrà

Jathro kau ra diwàrà

Adt gondàth mazàrà  
Nashk bishair potrawàn  
Bijalo khàn wàdhwàni  
Shair shîhi bahàzuràni  
Hàjiyân sùn sathànì  
Mohàri bith suriyàni  
Jang mashkul durghyàni  
Jiwan bor dàdhwàni  
Kàdhû wadà nai badànai  
Zaham al mas tai duràni  
Bingwà gwasht zawàni  
Ghodo paishimidànai  
Gon zàfar khàn Jabàni

Hàkim kinn daihàni  
Sangti Shair potrawàni  
Sujalû Path Maghsi  
Gonath zahma himati  
Chàndyà Gubzâr Ràzi  
Zaham wakti li khubàzi  
Sî gist jang i Mazàri  
Do sath Brahui Jamàli  
Wàtti zahma bawàli  
Trada naptà bukhtalàri  
Dhal dashta bût jâdi

Hazhda Pandràni  
Mir Bràhui ulkukàni  
Nam nazànà gapàni

Gadtai shair i turànà  
Hakul hà gàndayànà  
Nam Durhyànà girànà  
Ishty nashkai majhyànai

Bith samho gothumànà  
Math bithgo Fanj liyà  
Drokuthà taighà thiya

I will not give the camels to mine  
enemies

Start ye citizens and villagers  
In front with Hamal  
That great man Mir and hero  
Bind on your valuable swords  
Take hold of your saddle bows  
The bays dance and neigh  
Saddles, stirrups and worked stirrups  
The noise of the shoes of the feet  
was great

Our lord with a glad heart  
On the saddle of his mare  
Sixty Mazaris were counted  
They pushed their mares to speed  
The Mir is in front, victory will be  
theirs

At the stream of the Jathro moun-  
tain

The Muzaris arrive  
The fame of the lion's son is great  
Go on ye great Khans  
Braver than lions  
Haji the pilot of a hundred  
Get in front thou hero  
Fight Mashkul thou supremely brave  
Jiwan on his fine mare  
Kàdhû hammer of thy enemies  
Thou sword of the fierce durànìs  
Bingwa uttered this speech  
I will take my mare before all  
In company was Jaffer Khàn Jal-  
bàni

Governor of the Kinn district  
Were with the lion's son  
Sujalo and Path Maghsi  
Were in company brave swordsmen  
Gulzar and Razi Chàndyàs  
The players at the battle of swords  
The Muzàris force was sixty  
Two hundred Brahuis and Jamàlis  
They turned and fled from the swords  
The guns and swords were used  
On the faces and jaws of those with  
shields

Eighteen Pandrànis  
The Mir of the Brahui country  
His name is unknown that it could  
be mentioned

Those of the lion's locks return  
He came calling aloud  
He takes the name of Darjân  
He quitted this world and kept his  
vow

They advanced all together  
He had closed with Fanj liya  
His sword was false for it broke



Lutbi yaikghadiya  
 Hajaiyân dâwâ giriya  
 Go midoka bashkaliya  
 Husain khân mardi raliya  
 Jang mânjo bith sardâr  
 Suraiha Gul shair Dildâr  
 Jan Mahammad Jiwan Khânâ  
 Gul Makh Tâjû Jamâlî  
 Aj phathâ gwan̄k siyalî  
 Daimai khandati jamâlî  
 Kushta Gul Mammad Gist chàrà  
 Dâ fatteha kidd gàrà  
 Mishkadâ sârî jamârâ  
 Diwân byârî kalamovâ

They were killed in an hour  
 Haji entered into a dispute  
 And quarrelled with Bashkaliyâ  
 Husain Khan was among men  
 In the battle were these sardars  
 The brave Gul shair Dildâr  
 Jân Mammad Jewan Khân  
 Gul Makh and Tâjû Jamâlî  
 Called them retreating enemies  
 Hereafter the Jamalis will laugh  
 Gul Mammad and 24 were killed  
 God gave the victory  
 He became musk in the world  
 Gentles my lay is finished

*A Balochky Love Song.*

4th.

Sohwân yâdkanâ Sehwanâ

Bashk lâl manâ imânâ  
 Kâhnî kahev murgânî  
 Hâl mâhram dostânî  
 Gaishtar bîrsari hothânî

Lodî zaihmarân âkhtâ  
 Dast dast nishânî âdthâ

Monj darin dil bothakhtâ

Kâdzî baraigain singârthâ  
 Paishî mullawâo bângâ  
 Phulai sarmahârâi shipthâ  
 Yakpati shalânâ kânyuy  
 Ganja bailo nûrwahâ

Jathânai binindai jâhain  
 Kulân gorginâ gâth  
 Dost amsaro phalehthâ  
 Jaidi amsaro lhiwi

Shasht mardamai pâpudsai  
 Rindhi baidagai saghbandân  
 Kul bânzarâ laitainâ  
 Bhounri wâzgîr lâlînyâ  
 Shî mâhî zaibir thâlâmbi  
 Rúzî bahmanî bâlàthâ

Barkat Aly juwân marda  
 Railai zâharai darbaisha  
 Diwan biyârî kalamowa

Rindhai kachârî ai kuthâ  
 Gwasht mirân chàkarâ  
 Dúshî girokhân chumbarâ

Kasa gwâhî na dàth  
 Gàlà murid duiwângai

In the morning Sehwan comes before me

Endue me O Lâl with truth  
 She's a pigeon a peahen in walk  
 The state of my love is a secret  
 That very modest and beautiful creature

The minstrel has come with his lyre  
 And brought a token on his hand  
 from my love

My heart that was dry as wood became glad

My bay mare was got ready  
 Before the evening call to prayers  
 I put ornaments on the head stall  
 Without halting at speed I will come  
 To the flourishing Beilo on the Nûr-wahâ

Where my Jathanî is residing  
 The huts of reeds are crowded  
 My love is fairest of all  
 Among her companions and play-mates the fairest

I sent a man secretly  
 My Rindh dress arranged  
 I opened the curtain of the house  
 As the tree smells the flower  
 The pain of six months is removed  
 May you be pleased with no one but me

Aly is a great hero  
 Such are the wanderings of the bard  
 Gentles my lay is finished

5th.

The Rinds were all assembled  
 Mir Châkar spoke  
 "To night how many times has it lightened"

No one had witnessed it  
 The fascinated Murid spoke



Agai jan mard Koshinabai

Râstai nishânâ râz dyân  
 Dushi girokhân sibarâ  
 Dâ dubarâ shâmâl kutkâ  
 Gâl Amirai châkarâ  
 Bhalo Mubârak pusagâ  
 Hikhai i zith rawân  
 Dir banai mulkai kawân  
 Gâli murid daiwângai  
 O Sharra bâwâ mani  
 Sharrai na dithai dost mani  
 Kitai sarra barai kula  
 Macharragân gârkhutân  
 Man dâû kurân dâûwathâ  
 Man nailagati yâniyân  
 Lohâr pa bâsa phadâû  
 Gudakhân gwâth dhawâû

Pachomanai daiwânaga  
 Phamâ byârâi thâwadân  
 Mullâ bâzai khâga dâû  
 Mâlamai haufainai  
 Mullâ Mûnshi ai nalân  
 Mak nimâza na padâû  
 Dast bastago sirai bukhtagâ  
 Gud Amîr mojgâ

Kaulai trâshân chothwâ  
 Mirai salaihaiû irkanâ  
 Jân kadâ kolkh gudhân  
 Phadkâlâv pahâliyâ  
 Dast khamâ pa I'siyâ  
 Bilâph Mira Châkarâ  
 Borâ ila bastga  
 Kul dhwâ â baizagâ  
 Mâkh malang wagadhâ  
 Tahki o ra hijjâ rawân  
 Hijja dara zarat khanâ  
 Hânî markhânai murid  
 Ma kûtwaiyâ thakathâ  
 Mast murid cho laidhawâ  
 Chhakai janai hânalâ  
 Narmagâ do rakhanai  
 Hânai khwânka phaphadâ  
 Châkar Amidi bândâ  
 Log athi â âskhawâ  
 Barâ thiyâ duz barâ  
 Diwan biyâri kalamowâ

“ Formerly lover and mistress were  
 not killed

Mark well and consider it as true  
 To night it has lightened thrice  
 No twice it has become light”

Mir Chakar spoke

“ Very well Mubârak's son

At this instant begone

Remain in the far Ban country”

The fascinated Murid spoke

“ Oh my own father

Tis well you did not see my mistress

With bare head in the wide desert

I will wander and make my grave

With only a Qurân with me

Don't put manacles on me

At work is the cruel ironsmith

With the breeze of the south in his  
 bellows

They are for me who am mad

Bring for me a potion

The Mullâ may give me many charms

He doesn't know my disease

I am not a Mullâ or Mûnshi

I will not repeat prayers

I will now stoop my back is broken

And to be struck with the Amir's  
 shoes

I vow to cut off my locks”

The Mir took off his weapons

Took off his starched clothes

Left his carpet with Aliyâ

His bow with I'sâ

“ Mir Chakar may take all

My mare her picket pegs and ropes

She will stand starving at her stall

I will go begging with beggars

I will certainly go on the pilgrimage

And offer at the door of the temple”

Hânî and the noble Murid

Were shut up in a room

Murid like a wild camel

Bites Hânî's cheek

And her soft lips

Hânî is called from behind

From Mir Châkar's house

May his house take fire

And his mare be stolen away

Gentles my lay is finished

III.—*Native account of washing for gold in Assam.* By MONEERAM,  
Revenue Sheristadar, Bur Bundaree.

[Communicated by Capt. F. JENKINS to the Coal and Mineral Committee.]

There are no old papers of the *Assam* time relative to the above subject, but the following is compiled from the hearing of respectable people and shews the present state of gold washing on this country.

Before the British took possession of this country, the *Assam* rajas used to take from the sonwal's of *Upper Assam* a yearly tribute of 4000 tolals of gold, and in the time of the Boora Gohynes 2000 tolals used to be taken : when the Government had possession of *Upper Assam*, a tax was levied on the north bank of the river from 400 sonwal pykes, and at present there are about 150 or 160 gotes of pykes in all *Upper Assam*, from whom the rāja collects a tax. Besides these there are about 250 or 300 of these pykes (old and new) in the *Bur Senaputtee's* country. There are also about 10 or 15 gotes\* of these sonwals in *Bishnath*, and *Sonaree Chopree* ; and some in *Lithure*, *Gorokhia*, *Kaloneecholee*, and *Morung*, and there are 50 or 60 houses of them in *Sadiya* and *Soeekhown*. In the rāja's country the greatest number of his sonwal pykes reside on the north bank of the *Bur-rumpootur* : there are only about 26 houses of them on the south bank.

Assamese sonwal pykes during the time of Government.		During the present rāja's time.	Living now and on which bank of river.	Runaway sonwal pykes where living.
	Gotes.			
Bur Buroah's Bhag, .....	1	"	"	Muttuck
Seering Phookun's Bhag, ..	29	16½	South bank	"
Tupomeea Phokuns Bhag, ..	6½	"	"	Muttuck
In Seesee Tangonee, .....	26	"	"	Ditto
In Lokimpoor, Soolpanee, Nomel and Chareengeá Buroo-ah's Bhag, .....	69	44	North bank	"
In Bunscotha, .....	12½	7	Ditto	"
In Narainpoor, .....	8	3	Ditio	"
Cackaree sonwals, in Seesee, Lokimpoor and Majalee, .....	250	90	Ditto	"
Cackaree sonwals on the south bank, .....	11	4	South bank	Muttuck, &c.
Near the Dehing river, ....	"	15	Ditto	"
Beheea sonwals, .....	44	5	North bank	Muttuck
	457¾	184½		

The kheldars object to the 184½ gotes of pykes at present put down by the rāja, but admitting all their objections, there are not less than 150 gotes of these sonwal pykes in the rāja's country.

\* A gote of sonwals consists of four pykes or individuals.

Gold washing is the occupation of the sonwal pykes, but other pykes sometimes join with them and receive their share. The tax is levied on the sonwals only at the following rates. At the time of the washing, the Burahs, and Sykeas with their sonwal pykes go in a body to the place selected by them, and at the close of the year each pyke gives  $\frac{1}{2}$  a tolah of gold for his share of tax; but there is an extra cess levied for melting, &c. according to the quality of the gold; for the best kind (or votom) they give 3 rattees more than the  $\frac{1}{2}$  tolah, for second best (or modom) 4 rattees, for third sort (or norrom) 6 rattees or 1 anna; besides this there is a commission of one rupee's weight in every 20 taken by the Phookuns and Burrooahs, half tolah in 20 by the Teklahs and Burrahs,  $\frac{1}{4}$  tolah by the Bhundar Kagotee, and when the tax in gold is presented to the rája, the Chung Kagotee, the Bhundaree Leekeerah, the Pachonee, and the Kookoorah chowah Burrah, take altogether  $1\frac{1}{4}$  tolahs of silver for each tolah of gold.

In the time of rája RAJESWUR SING, the sonwals of *Upper Assam* alone used to give 6 or 7000 tolahs of gold in addition to the moheea or tax that was levied on them, and in rája GOUREENATH SING's time the sonwals of *Upper Assam* used to give 4000 tolahs of gold every year; besides this there was gold received from the following places of *Lower Assam*, Chingah, Sondhonnee, Chooteea, and Chatgarree, and it was also brought from the Bhooteahs by a sunzattee sent by the rája. The best kind of gold is that found by the jongol souwals, and the Kacharee sonwal's gold is the worst.

The hill streams produce the best gold, and the stronger the current of the stream the better the gold; very slow running streams do not produce good gold. The gold found in the *Burrumpootur* is not good, it is washed by the Kacharee sonwals, and this is the reason why the Kacharee sonwals have no good gold.

*List of rivers in Assam which produce gold.*

1 Lohit	*1 Kakoee	1 Sonsiri	1 Doka Jooree
1 Dihing	*1 Kuddum	*1 Jongloong	In the east 2 Jooree, if
1 Tengapanee	*1 Somdiri	*1 Jajee	the gold is washed with the
1 Paroorah	*1 Doosra Deejoo	*1 Desoe	consent of the Dufia,
1 Dehong and	1 Dikrung	Under the Dufia	each party can collect $\frac{1}{4}$ of
Dibong		hills in Chardoar	a tolah daily.
1 Deegaree	1 Kharatee		
1 Dhol	1 Boorootee	1 Doobee	1 Pomahs
*1 Seedang	1 Bor Gang	1 Pormae	1 Garroah
1 Dibooroo	1 Bor Deekoree	1 Roydeng	Besides the above there
1 Soobun sir	*1 Bhoirobbee	1 Bechumae	are several other small
1 Deejoo	1 Mansiri	1 Kallee Jooree	streams.

The names of rivers marked thus \* produce the best gold.

There are other rivers falling into these which produce gold, but the best gold is found in the most winding streams with the strongest currents.

Not having any old papers on this subject there may be some trifling errors in the above estimates, but it is a positive fact that 4000 tolahs of gold at the very least were received annually by the *Assam* rája.

There are four methods of collecting gold as follows:—

1. The Kacharees wait until the river rises and when it falls again suddenly they scrape up the sand and wash for gold.

2. All other sonwals collect and wash for gold during the dry season.

3. The sonwal of the Rydegeea Phookun's Bhag go up into the hills and collect the copat, which they burn to produce gold.

4. The gold-washers in the *Seedang* river get the gold by washing the moss and slime which they scrape off the *rocks* in the bed of the river.

These are the four methods by which gold is collected, but the gold-washers generally collect the gold during the dry season.

*Method of washing and collecting gold from sand.*

Wherever the current is strong with a falling bank above it ending in a sharp turn of the river, the sonwals examine the opposite shore where the sand from the falling bank is thrown, and if this should contain gravel mixed with the sand it is accounted a good place to find gold in.

Each party consists of a patoe and 4 pallees, who wash in one trough (or dorongee No. 5); when they find a proper place to commence operations they begin by working about in the sand with a sharp pointed bamboo (No. 1, or sokalee) to find the depth at which the gravelly sand is, they then take it up in a piece of split bamboo, (No. 2, bans chola) and examine whether there is any gold dust in it; if they see 12 or 14 bits they immediately build their houses and commence operations. They first bund up the deep part of the stream, if it be a small one with sand, and if large with stakes and grass: the stream then takes a different direction over the sand; they allow it to wash away the upper surface of sand so as to expose the gold sand, when the bund is re-opened and the stream returns to its original bed. The upper sand is then scraped off and the good sand collected with a kind of wooden spade (No. 3, kater dohtal); this shovel is  $1\frac{1}{2}$  cubits long by 1 cubit in breadth, with a handle 4 cubits long; the blade is of the form of a crescent with holes at each corner through which a string is passed and two men lay hold of and pull this string, while a third person keeps pressing the spade



down in a perpendicular position ; the sand is then taken up in small baskets with handles (No. 4 called cookees) and thrown on a bamboo lattice work or strainer (No. 6 ban) which is laid over the trough by a (dorongee No. 5.) This trough is made of wood and 3 cubits long, 1 cubit broad and 1 span high all round, with a slit 3 fingers wide at one end. Water is now thrown over the sand with a calabash having a large piece scooped out at the bottom, beside a very small hole on one side (No. 7, lao) ; the water is thrown on with one hand while the other hand is employed in moving the sand about and sweeping off the larger particles of gravel from the surface of the strainer ; in this way the sand is spread on and water poured over it ; and as the trough fills the water and dirty sand run off through the slit in it, while the clean sand and gold remain at the bottom of the trough. I forgot to say that the trough is placed at a small angle to assist the water and dirt to run off quickly. When 40 or 50 baskets of sand have been thus washed into the trough the sonwals call it a sheea, and if a ruttee of gold is produced from one sheea they think themselves very fortunate indeed, for during the long days they get about 30 sheeas or washings producing one ruttee each, and during the short days about 25 shecas, each party thus making on an average about  $\frac{1}{4}$  of a tolah of gold daily. When they happen to fall on a good old stream that has not been disturbed for 5 or 6 years they get 2 ruttees of gold from every sheea or washing, and then each party makes about  $\frac{1}{2}$  a tolah daily.

The gold and sand of the last washing is collected into pottles (or chongas) by spreading a leaf of copat or some other plant at the end of the trough, and dropping water very gently on the sand through the small hole in the calabash, which causes a parting of sands and gold to be thrown on the leaf ; when the whole is collected in this way it is put into the pottle and tied up and the next washing is commenced on. As soon as they have collected enough in the pottles they give up washing the common sand, but pour out the gold and sand from pottles into the trough again, and putting in about an anua's weight of quicksilver for each tolah of gold dust, they pour water over the sand to keep it in motion while the quicksilver remains below with the gold dust and forms it into a lump ; this lump is then put into a shell and on a fire of nahar wood charcoal ; when the quicksilver evaporates and the shell becomes lime ; it is then carefully taken up in a spoon and thrown into water when the gold falls to the bottom ; if it be of a brass color it is wrapped in a paste made of clay from the cooking choolas mixed with a little salt and burnt in a fire, which gives it a proper color\*.

\* This process causes an absolute refinement of the surface of the gold :—it is the same used in gold refining by the natives, but in the latter case the



The gold is washed for in all streams during the months of Maug, Falgoon, and Choit, and also in a few streams in the month of Assin and Cartick, but during 4 days in each the sonwals do no work, viz. at the new and full of the moon, on the first of the month and on a general holiday all natives have *once* a month called ekadosee, (the 11th.)

The Kacharee sonwals use the same instruments as above.

The Rydengeea Phookun's sonwals burn the copat leaf and thus produce gold from the ashes as written above.

The gold-washers in the *Seedang* dry the moss and slime and then wash it in the usual manner.

This is the way in which gold is washed, which is so uncertain that an unfortunate set of men sometimes get only about a tolah after a whole months labor.

IV.—*Further information on the gold washings of Assam, extracted from Capt. HANNAY's communications to Capt. JENKINS, Agent to the Governor General in Assam.*

It is the general belief of the inhabitants of the surrounding countries, that the rivers of the valley of *Assam* abound in gold, and this is in a manner corroborated by the numbers of the inhabitants of *Assam*, who are gold-washers by profession; and judging from this fact, and the compacts which existed between the gold-washers, and the state in regard to revenue payments, the quantity of gold received into the public treasury must have been considerable.

The gold-washers of *Assam* are designated sonewahls, but as they were distributed in different parts of the country and placed under the authority of Phokans, Boorooahs, and other chiefs, they were generally known only by the names of the "Khel" or tribe of chief, under whom they resided. They were of all the classes and castes found in *Assam*, the Beheeahs (a tribe of Ahoms), and the Cassarees, being however the most numerous. The sonewahl Cassarees, who formerly occupied *Sydiah* and its vicinity, were a distinct class from those residing, as before mentioned, under the orders and authority of different chiefs; they were entirely under the orders of the rajá himself, and they supplied him with gold when called upon to do so.

The whole of the rivers\* in *Assam* contain (as formerly noticed) metal has to be reduced in the first instance to very thin leaves to allow the muriatic acid fumes to penetrate and unite with the alloy.—ED.

\* A list has been given in the foregoing paper; but many names differ: Capt. H. states that in fact it comprehends all the rivers and torrent streams in *Assam*.—ED.

more or less gold in their sands, and the soil of which their banks are composed; the most noted however are the *Bor-oli*, *Subon-shiri*, *Desue*, and *Joglo*, the two latter containing the purest and best gold, and in the *Joglo* it is said that this precious metal is found in large grains, about the size of a grain of rice. The color of the gold also in both the last named rivers is of a deep yellow, and it was so much prized, that the jewels of the rája's family of *Assam* were invariably made up from what was collected in them.

The gold of the *Buramputer* is considered the worst, and it seems to be a general opinion, that the gold is best, and in greatest quantities, when the bed of the rivers is composed of a mixture of sand and small pebbles. I cannot however speak with confidence on this point, further than to observe, that the whole of the rivers I have enumerated have their sources in the mountains, and they have naturally for a considerable portion of their course a pebbly and stony bed.

The *Desue* is a small river, and has sometimes little or no water in it; it has a short course from the mountains south of *Jorehaut* (where it rises) to the *Buramputer*, and a heavy shower of rain near its source causes it to rise suddenly. The gold-washers carry on their operation one and a half days' journey above *Jorehaut*, where the bed is stony.

The *Joglo* rises in a range of small hills, which stretch across from *Jaipore* towards *Sudiya*, and after a very short course of a few miles falls into the *Booree Dihing*; it has throughout a pebbly bed, and towards its mouth the banks are high, and composed of yellow-colored clay, similar to the soil of the hills and the tract of country through which the *Joglo* passes. At the mouth of the last named river the bed of the *Dihing* is conglomerate rock, rich in iron, and the hills in which the *Joglo* has its rise, abound in iron and coal.

The sonewahls endeavour to keep their art as secret as possible, and wish to make people believe that they have particular methods of washing for gold, and that they alone know the most favorable spots for carrying on their operations. A few of these peculiarities however have been pointed out to me.

The best time to wash for gold is after a rise of the waters in the rivers, and the most favorable spots are where beds of the rivers are composed of small rounded pebbles of quartz and sandstone, with a mixture of sand, and also in spots, where from natural causes, there is an extensive deposit of this. In the *Joglo* however the soil is scraped from the banks, and washed, and I am told that the soil and sand which has collected about the roots of trees on the banks, is considered rich

in gold, but particularly when it has collected in considerable quantities round the fibrous roots of the gigantic fern.

Hollows and cavities in the loose ferruginous sandstone (which abounds in many of the rivers) are likewise cleared of all sand and gravel, the outer coating of the sandstone scraped off, and all is carefully washed. This last is said to be sometimes a prolific source of the precious metal.

I have only twice witnessed the process of gold washing, once in the *Erawaddie*, and once in the *Booree Dihing*, and although the method by the gold-washers differed, the soil washed was the same. The residue left, after the sand was washed out, was in both cases, a black metallic looking sand, which contained the gold, and this blackish sand is invariably met with, excepting in washing the outer coating of the ferruginous sandstone above mentioned\*.

3rd April, 1838. *Experiments.*—In the *Buramputer* or *Lohit* which it is called above *Debong Moukh*, and in the vicinity of *Tengapannee Moukh* a party of Cassarees 60 in number, washed for five days, and realized 25 rupees weight of gold. Also twenty men for one month who collected half a tola, or eight rupees worth of gold each. And fifteen men for one month, collected each eight rupees worth of gold. The above operations have been performed within the last few years.

In the *Noa Dihing* both above and below the present village of *Beesa*, a party of twenty Cassarees, washed during three months in the latter end of 1837, for gold, and realized eight annas weight each, in all ten tolas, which was sold at *Sydiah*, for twelve rupees per tola of gold dust.

In the *Booree Dihing* a party of Cassaree traders in salt, 24 in number, washed for gold during their stay at *Jaipore* for one month, and realized in all twelve annas weight of gold.

In the cases above mentioned there is a considerable difference in the quantities of gold collected. The last named however, being realized when the party were on a trading visit to *Jaipore* for salt, can hardly be considered as a fair specimen, as the washing for gold was looked upon more as a pastime and the labour by no means constant. But the first mentioned instance may be taken as a very fair specimen of what can be earned by gold washing in the *Lohit*, when the numbers of the gold-washers are considerable, and when the object is to procure as

\* Capt. H.'s account of the process and implements is omitted, as a tolerable description has already been given in the preceding paper. Might not the galvanic magnet be advantageously employed in freeing the washed sand of its ferruginous particles? We have frequently employed the common magnet in the examination of small specimens of these sands with advantage. The use of mercury might thus be avoided.—Ed.

much gold as they possibly can within a short period, which was the case in the instance above alluded to.

The only peculiarity I can find worthy of notice, in regard to the foregoing information is, that in washing the sands of the *Noa Dihing*, a quantity of beautiful and minute crystals of quartz are left after the dirty portion and larger pieces of gravel have been thrown aside, and this description of residue is not observed in any other rivers of the upper portion of *Assam*.

I have also to remark that it is the custom with the sonewahl Cassarees of *Sudiya* to reckon four men to a gote, their method of washing for gold requiring for each durrune, or trough, four men to keep the operation constantly going on, the distribution of them, being, one man to wash, two to bring the soil, and the fourth to dig—and all relieving each other at intervals.

*5th May.*—The information which is herein given may be depended upon as correct; it was taken from the head of a party of sonewahl Cassarees now residing at *Burgohain Pokni*, on the south bank of the *Booree Dihing* who make a yearly visit to the known sources of the precious metal. The dates are not specified, but the washing for gold took place at different periods.

1. In the *Lohit* or *Buramputer* above *Sudiya*, a party of gold-washers consisting of 12 men washed for 20 days, and realized 7 tolas of gold.

2. In the *Dholjan* or A. B. *Buramputer*, a party of 20 men washed for 16 days and realized 1 tola.

3. In the *Jungi*, 15 men washed for 20 days and realized  $7\frac{1}{2}$  tolas.

4. In the *Desue* or *Jorehaut* river, 15 men washed for 12 days and realized  $7\frac{1}{2}$  tolas.

5. In the *Dhunserree* river, 15 men washed for 12 or 15 days and realized  $7\frac{1}{2}$  tolas.

With reference to the above I have been told that the quantity of gold obtained in the three last mentioned rivers or rather hill streams, may be taken as a good average of what can be procured from them; they are considered rich with reference to other streams in this province which are washed for gold, and the quantity which could be obtained must depend upon the number of people employed. In my inquiries regarding particular localities, soil, &c. washed, I can obtain nothing additional to what I have already laid before you, a sudden turn in the river where there is a deposit of loam sand and small round stones or pebbles, and a situation where the level of the country commences to ascend towards the hills, seem to be considered the most favorable localities with reference to the small streams which I have noticed here.



V.—*Lithographs and translations of Inscriptions taken in ectype by Captain T. S. BURT, Engineers: and of one, from Ghosi taken by Captain A. CUNNINGHAM, of the same corps.*

*Delhi Iron pillar.*

In last month's Journal I commenced the agreeable task of laying before my readers that portion of Captain BURT's budget of inscriptions (gleaned in the short interval since his return to India), which was couched in the old *Pāli* character. I now take up the second division, containing those in what has been designated by himself the 'No. 2 character of the *Allahabad* pillar:' to which series belongs three very interesting inscriptions, two entirely new from central India; and one, known far and wide certainly, as far as its existence and its supposed illegibility are concerned, but hitherto never placed before the learned in its true condition, so as to allow a fair trial at its decipherment. I allude to the short inscription on the celebrated iron pillar at *Delhi*, of which I published in 1834, an attempted copy taken by the late Lieut. WM. ELLIOT at the express request of the Rev. DR. MILL; but it was so ingeniously mismanaged, that not a single word could be made out! and there can be no wonder at this, if the reader will take the trouble to compare Lieut. ELLIOT's plate (Pl. XXX. Vol. IV.) with the accompanying reduced lithograph of Capt. BURT's facsimile! I should perhaps remark that I lithographed the present plate *before* transcribing it for the pandit, so that there could be no partial bias towards a desired construction of any doubtful letter. Nothing of the kind however was necessary: the letters are well formed and well preserved notwithstanding the hard knocks which the iron shaft has encountered from the ruthless invaders of successive centuries. I have been promised by Capt. BURT an account of this and the other monumental remains visited in his journey across India; I need not therefore enter upon the history of the *Delhi* iron pillar, but shall confine myself to the restoration and explanation of the record it contains.

The language is Sanskrit; the character is of that form of *Nāgari* which I have assigned to the third or fourth century after Christ, the curves of the letters being merely squared off: perhaps on account of their having been punched upon the surface of the iron shaft with a short *cheni* of steel, and a hammer, as the absolute engraving of them would have been a work of considerable labour; but this point I have not the means of determining.

The composition is poetical, consisting of six lines, or three *slokas*, in the *sardula vikrīḍita* measure:—it is observable that the first line is written in a much smaller hand than the remainder.

The purport of the record is just what we might have calculated to



find, but by no means what was fondly anticipated, or what will satisfy the curiosity so long directed to this unusual and curious remnant of antiquity. It merely tells us that a prince, whom nobody ever heard of before, of the name of DHAVA, erected it in commemoration of his victorious prowess. He was of the Vaishnavi faith, and he occupied the throne he had acquired (at *Hastinapura* ?) for many years ; but he seems to have died before the monument was completed. As there is no mention of royal ancestry we may conclude that he was an usurper.

The only interesting piece of information it contains, is that DHAVA's arms were employed against the *Váhlíkas* of *Sindhu*, who were combining their forces to invade his territories.

The *Báhlíkas* are generally admitted by the learned to be the Bactrians, or people of *Balkh* :—but here the expression *sindhorjitá váhliká*, the ‘conquered *Váhlíkas* of the *Sindhu*’ proves, that at the time of DHAVA the Bactrian principalities extended into the valley of the Indus,—and it further proves what we have been led to suspect from the numerous coins with unknown Greek names in the *Panjáb*, that instead of being totally annihilated by the Scythians 120 years before Christ, the descendants of the Greeks continued to rule perhaps for a century or two after Christ, in the regions south of the *Paropamisan* range. If the authority of a graven monument of high antiquity be received as preferable to the variable readings of books, we should correct the बाल्लिका and बल्लीका of the *Ramáyana* and of HEMACHANDRA's lexicon, to वाह्लिका.

As in the *Allahabad* inscriptions, the pillar is called ‘his arm of fame,’ and the letters engraved thereon are the typical cuts and wounds inflicted on his enemies by his sword writing his immortal fame ! Rájá DHAVA has left behind him at any rate, a monument of his skill in forging iron, for the pillar is a well wrought circular shaft of iron, longer and nearly as large as the shaft of the *Berenice* steamer !

Here follows the text as corrected by KAMALÁKÁNTA, in a few letters, which will be seen on comparing it with the plate ; the translation I have kept as nearly literal as it can be rendered, which makes it difficult to follow.

*Transcript of the Delhi Iron pillar Inscription.*

- 1 येनाद्धर्गयतः प्रती कमुसि(तान्) शत्रून समेत्यागतानङ्गेष्वहव  
वर्त्तिनो विलिखितं खड्गेन कीर्त्तिर्भुजं । १
- 2 तीर्त्वा सप्तसुखाधिपेन समरे सिन्धोर्जितावाह्लिका यस्याद्याप्यधि  
वास्यते जनविधिवीर्यान्विते दक्षिणः ॥ १ ॥ २

Reduced to  $\frac{1}{2}$  the true an-  
omalous from an ink  
impression taken by Capt  
T S Bust Eng<sup>s</sup> 21 Apr 1838

Journal A.S.Soc.

[illegible]

INSCRIPTION ON A LONG STONE FROM THE PORT OF GHOSI, 28 MILES E OF AZIMGARH.  
IN TWO LINES

[illegible]

A Clonningham des.

c प्रयत्नेऽत्रियममूरोष

४ ककुलस्यैवलिगा

ॐ विरु दुलैरु रणी वरा अवा मा कु रे (Broken off here)

Prinsep  
1776.



- 3 सिंहस्येव विहज्य गां नरपतेर्गामाश्रितस्योत्तरं मूर्त्या कर्मचिता  
घनिधुर्तवतः कीर्त्या स्थितस्य क्षितौ । ३
- 4 शान्तस्येव महावनेरुतभुजे यस्य प्रतापोमहान्नाद्याप्युत्सृजतिप्रणा  
शितरिपोर्यत्नस्य लेशः क्षितिं ॥ २ ॥ ४
- 5 प्राप्तेन स्वभुजार्जितञ्च सुचिरञ्चैकाधिराज्यं क्षितौ चन्द्रार्केण समग्र  
चन्द्रसदृशीं वक्त्राश्रयं विभ्रता । ५
- 6 तेनायं प्रणिधाय भूमिपतिना धावेन विष्णौ मतिं प्राडशुर्विष्णुपदे  
शिरोभगवतोविष्णोर्भुजः स्थापितः ॥ ३ ॥ ६

*Translation.*

"1. By him, who learning the warlike preparations and entrenchments of his enemies with their good soldiers and allies, a monument (or arm) of fame engraved by his sword on their limbs,—who, a master of the seven advantages\*, crossing over (the Indus ?) so subdued the *Vahlikās* of *Sindhu* so that even at this day his disciplined force† and defences on the south (of the river) are sacredly respected by them.

2. Who, as a lion seizes one animal on quitting hold of another, secured possession of the next world when he abandoned this,—whose personal existence still remains on the earth through the fame of his (former) deeds, the might of whose arm, even though (he be) now at rest (deceased), and some portion too of the energy of him who was the destroyer of his foes,—still cleave to the earth.

3. By him, who obtained with his own arm an undivided sovereignty on the earth for a long period, who (united in himself the qualities of) the sun and moon, who had beauty of countenance like the full moon :—by this same *rāja* *DHAVA*, having bowed his head to the feet of *VISHNU* and fixed his mind on him, was this very lofty arm of the adored *VISHNU* (the pillar) caused to be erected."

*Inscription from a temple of Varāha and a Dhvajastambha in the vicinity of Erun or Airan in Bhopāl.*

Lieutenat CONOLLY and Captain BURT started from *Mhow*, on an exploring journey. They continued in company as far as *Sehore*, where some copper-plates in Mr. WILKINSON'S possession occupied the atten-

\* The *Sapta sukhāni* are the same as the *saptāṅgani* or seven limbs of government, explained in the last inscription.

† *Janavidhi*, the pandit thinks to be 'a military post.'—I prefer simply disciplined body of men, or discipline.

tion of the former, while the latter hearing of a pillar at *Airan* hastened off by *dák* to visit it, and was rewarded with the two inscriptions which follow, and a few insulated names in various styles from the *Airan* pillar and temple. Of the monuments he has kindly promised a full description; the history of their origin as derived from the inscriptions themselves however may be succinctly told :—

The temple was built by *DHANYA VISHNU* the confidential minister of *rāja MÁTRI VISHNU* the son of *HARI VISHNU*, grandson of *VARUNA VISHNU* and great grandson of *INDRA VISHNU*; in the first year of the reign of *rāja TÁRAPÁNI* of *Suráshtra* (?) : and

The pillar was erected by *VAIDALA VISHNU* the son of *HASTI VISHNU*, also grandson of *VARUNA VISHNU*, and at the cost of *DHANYA VISHNU* on the 14th of *Asarh* in the year 165, in the reign of *BUDHAGUPTA* in *Suráshtra*, comprehending the country between a river whose name, though partially erased, may be easily made out as the *Kalinda* or *Jumna* and the *Narmada*, or *Nerbudda*.

Here is a new scion of the *GUPTA* race of kings to be added to our lists, and a well defined date, if we could but determine by what era it should be interpreted. As yet however we must leave this point unsettled, until, by comparison with other records, we may be able to arrive at the solution of the problem.

*Transcript of the inscription on the Varáha image.*

जयति धरण्युद्धरणे घनघोषाघातघूर्णितमहीध्रः । देवो वराहमूर्त्ति  
स्त्रिलोक्यमहागृहाङ्गमूः ।

वर्धे प्रथमे पृथिवीं पृथुर्कोत्ती पृथुयुतौ महाराजाधिराजश्रीतार  
पाणे प्रशासति फाल्गुनदिवसे दशमे इत्येवंराज्ये वर्धमासदिनैः एतस्य  
पूर्वं यशःखलक्षणासूक्तपूर्वयागसकर्मनिरतस्य क्रतुयाजिनोऽधीतस्वा  
ध्यायस्य विप्रर्षेर्मेत्रायणायकपभस्येन्द्रविष्णोः प्रपौत्रस्य पितुर्गुणानुका  
रिणो वरुणविष्णोः पौत्रस्य पितरमनुजातस्य स्ववंशवृद्धिहेतोर्हरिविष्णोः  
पुत्रस्य अत्यन्तभगवद्भक्तस्य विधातुरिच्छया स्वयंवरयौवराज्यराज  
लक्ष्म्यधिगतस्य चतुःसमुद्रपर्यन्तप्रथितयशसः अक्षीणमानधनस्थानेकशत्रु  
समरजिष्णोः महाराजमाटविष्णोः स्वर्गतस्य भ्रातुर्वंशेन वेदनविधायिना  
तत्प्रसादपरिगृहीतेन धन्यविष्णुना तेनैव... विभक्तपुण्यक्रियेण माता  
पित्रोः पुण्याप्यनार्थमेवं भगवतो वराहमूर्तेर्जगन्नारायणस्य नाराय  
णस्याशीर्षे प्रासादः स्वविषयेस्मिन्नेरिकोणे कारितः । स्वस्यस्तुब्राह्मणपुरे  
शान्याः सर्वप्रजस्य (च) इति ॥







## Translation.

“ He is victorious ! the boar-shaped god, who at the time of delivering the earth whirled round the mountains by the jerk of his tusks ; from the increase of whose body have proceeded the three regions.

When the great rāja TĀRAPĀNI, the very famous and beautiful, the king of kings, governed the earth ; in the first year of his reign, on the tenth day of *Phālguna* :—before his time the well known DHANYA VISHNU the doer of many virtuous deeds, follower of the injunctions of the vedas, obedient to his brother the late great rāja MĀTRI VISHNU (since departed to heaven) and favored by him—who obtained the good fortune of the regency by public election, and through the grace of God ;—famous as far as the four oceans, ever respectable, and victorious in many battles with his enemies, the devoted worshipper of *Bhagavān*,—who was the son of HARI VISHNU, resembling his father,—the grandson of VARUNA VISHNU, possessor of his father’s qualities,—great grandson of INDRA VISHNU of the *Maitrāyanāyakraipabha* race, the illustrious and distinguished, observant of his religious duties and sacrifices with *Sukta* (a hymn of the Rigveda)—a regular sacrificer, well read in the *vedas*, and a *rishi* among the brahmans.—By him (DHANYA VISHNU) was caused to be erected this new temple of *Jagan-Nārāyana*\* *Nārāyana*, in the form of VARĀHA (the boar incarnation) at his own village of *Nerikona*, in the reign, year, month, and day aforesaid.

Glory to the mistress of Brāhmanapura and the king to whom all the people belong ! (?)”

## Inscription on a pillar near the same.

जयति विभुश्चतुर्भुजश्चतुरर्णवविपुलसलिलपर्यङ्कः जगतः स्थित्युत्पत्ति (क्षय) हेतुर्गण्डकेतुः । शते पञ्चषष्ट्यधिकवर्षाणां भूपतौ च बुधगुप्ते आषाढमासे त्रयोदश्यां† सुरगुरोर्दिवसे संसुरतं कालिन्दी नर्मदयोर्मध्यंपालयति लोकपालगुणैर्जगति महार्हश्रीयशोभावति‡ सुराजिचन्द्रे च अस्य संवत्सरे मासदिवस पूर्व्यायं स्वकर्माभिरतस्य क्रतुयाजिनो अधीतस्वाध्यायस्य§ विप्रर्षेर्मात्रायण्यकृपभस्येन्द्रविष्णोः प्रपौत्रेण पितुर्गुणानुकारिणो वरुणविष्णोः पौत्रेण पितरमनुजातस्य स्ववंशवृद्धिहेतो

\* Or *Narāyan* who is himself the water of the universe.

† The word is written corruptly *tryordasyān* in the original.

‡ In the original it appears, *यमुनाभावति* on whom is the splendour of *Yamunā*.

§ In the original corrupted to *स्वाध्यायस्य*.

ईरिविष्णोः पुत्रेणात्युद्धतेन भगवद्भक्तिना विधातुर्निष्कृया स्वयंवरयैव  
 राजलक्ष्म्यधिवृतेन चतुःसमुद्रपर्यन्तप्रथितयशसा अक्षीणमानधनेन  
 इन्द्रविष्णोः प्रपौत्रः मातृविष्णुः तस्यैवानुजातेन वैदलविष्णवभिधेयेन  
 [तस्यादर....] तेन धन्यविष्णुवित्तेन मातापित्रोः पुण्याहितमनसा  
 भगवतः पुण्यजनाईनस्य जनाईनस्य ध्वजस्तम्भोऽभ्युच्चितः । स्वस्यस्तु  
 पौरजनानुरागस्य सर्व्वप्रजस्य [च] इति ।

*Translation.*

"He is victorious ! (VISHNU) the four-armed, omnipresent, the creator and preserver of the world, whose bed is the immense water of the four oceans and whose *ratha-ketu* (chariot standard) is Garūḍa.

On Thursday the thirteenth lunar day of the month of A'shaḍha of the year 165 when the king BU'DHA GU'PTA who was the moon of good administration, and resplendent in fortune and fame, governed the beautiful country situated between the *Kālindī* (Jumna) and the *Narmada*, by his good qualities (derived) from the *Lokapālas*\*. In the afore-said year of his dynasty, in the very month and day aforesaid : one named VAIDALA VISHNU who was famous as far as the four oceans, ever respectable, who by public election and through the favor of God obtained the good fortune of the regency, who was devoted to *Bhagavān*—the son of the father-resembling HARI VISHNU ; grandson of the father's-talent-possessing VARUNA VISHNU,—the great grandson of INDRA VISHNU, of the *Maitroyanāyakraipabha* race, a strict observer of his religious duties, regular in sacrifices, reader of the *veda*, a very *ṛishi* among brahmanst†. By him (VAIDALA VISHNU) this banner-pillar was erected at the expense of DHANYA VISHNU,—for the prosperity of his race, in honor of JANÁRDANA‡ the distresser of the *Púnyajanas* (*Rakshas*).

Glory ! to him who is a patriotic (prince) and to whom belong all the people !"

Besides the principal inscription on the *Eran* pillar, there are as usual several names scratched in different hands and at different times ; four of which I have selected as specimens, being the only ones in the more ancient form of Nágari. They are inserted at the foot of Plate XXXI.

A, the first, wants something at the end : supplying a त conjecturally it will run—

\* Upholders of the universe.

† These several epithets are almost literatim the same in both inscriptions.

‡ VISHNU'.







कलभुजशाम्भुशङ्केनोत्कीर्णं सुकृतं

“ Well executed in sculpture, by *Kalābhujā Shambhu* the *Shánka* or stone-cutter.”

The second, marked B, is hardly legible in the middle, but I think it may be read :

सामन्तपौत्रेण सैनान्या लिखितं

“ Written by *SAMANTA PAUTRA* (the grandson of the general)—the captain.”

The third, C, is very plain and distinct सामन्त दोषस्य नाम, “ the name of *Samanta Dosha* :” but I should be inclined to think the 'ष' intended for a व, and the name *Samanta deva*, as *dosha*, (a fault) would hardly be applied as a name.

The fourth, D, is insignificant ; the letters are all plain, but the sense incomplete खतेन वैश्रीके (न लिखितं) ‘ written by *KHATA* the son of the unfortunate.’

*Inscription from Ghosi near Jaunpur.*

Captain CUNNINGHAM has furnished no further particulars of this fragment than are contained in the heading of the facsimile, a long slip of paper taken from a detached stone stated to be broken off at either end. After an invocation to *HARI VISHNU*, it commences the usual eulogy on the glorious exploits of a *rāja* named *DHARANI VARÁHA*, and from the style there must evidently have been a long sequel, which if it could be recovered might give us some new information on a period not long anterior to the Muhammadan invasion.

Being in verse, the pandit who assisted me in deciphering it has been easily able to supply the hiatus in the first line. I have blundered in copying the facsimile, but by the letter references the order of the lines may be traced.

नमः ॥ संश्रान्तेर्नमस्तार्थे दिशिदिशि विहते पार्थिवे भावभावे आसी  
न्यगोधयकः किलतमनुगतो योगनिद्राच्छलेन । यः स्फारस्फारवीर्यैः  
प्रवलरविजगन्निर्दमन् कल्पकल्पे सोयं पर्यङ्कवद्धो हरतु भवभयं देव  
देवोहरिर्बः ॥ १ ॥

आसीन्नृपः स्वयशसा परिदीपिताशः संगृह्य शत्रुनृपतेः श्रियमस्त  
दोषः । सन्तोषयन्निजगुणैर्द्धरणीवराहनामान्यभूमिपतिनिर्दयलब्ध  
वर्णः ॥ २ ॥

सेनाजौ निष्क्रमन्ती समदगजघटाटोपवृद्धान्तकारिण्यङ्गच्छेदोच्छला  
 च्छसुतराधिरवसामेदसा यङ्किलेऽस्य । हेत्योघैर्हेतिसङ्गाद्भगितिभिखि  
 तडिद्योतिताशाविभागे आनीता राजलक्ष्मीरसद्वदरिवधूवत्तया साद  
 रेण ॥ ३ ॥

सन्वाहं माचक्रलिका तिलका.....कभ इव न सोषयरा  
 .....विभो विभावं यो

*Translation.*

“ Adoration ! (May he) who, when on all sides all earthly things were destroyed (by the deluge) floated under the semblance of a sleeping yogî to the insulated fig-tree which alone remained for the redress of the calamity ;—who with ever increasing strength subdueth the sun-scorched earth at the end of every *kalpa* ;—may he, girding up his loins, remove from you the fear of the world,—HARI the god of gods !

There was a *rāja* named DHARANA VARĀHA illuminating the horizon with the fame of his appropriating the prosperity of his enemies ;—satisfactory in qualities ; without blemish ; and renowned for subduing other kings.

By his army whose elephants, well trained and of moistened temples, darkened the horizon, as they rushed to the battle-field miry with the blood, marrow and serum of mangled limbs,—whence the sparks of the concussing battle-axes (*peti*) flashed like lightning on all sides—by this army has he brought back the royal *Lakshmi* with the respect due to the wives of his enemies !”

(The rest mutilated and unintelligible).

VI.—*Additions to Bactrian Numismatics, and discovery of the Bactrian Alphabet.* By JAMES PRINSEP, Sec. As. Soc. &c.

It is not an easy matter to gratify my numismatological readers with a plate of entirely new Bactrian coins so frequently as they would wish ; for, independently of the time and labour requisite for engraving them, the subject, as to new names at least, may be looked upon now as nearly exhausted. Opportunities however still occur of verifying doubtful readings, of supplying names where they were erased or wanting in former specimens, and of presenting slight varieties in costume, attitude, and other particulars, which tend to complete the pictorial history of the Bactrian coinage.

For these several objects I enjoyed a most favorable opportunity during the visit of General VENTURA to Calcutta last winter ; his second

collection, though possessing few types or names absolutely new, boasted of many very well preserved specimens of the small silver coinage of MENANDER, APOLLODOTUS, LYSIAS, ANTIMACHUS, PHILOXENES, &c. The General most liberally conceded to me, from his abundant store, several that were wanting to my own cabinet both of silver and copper, and he placed the rest also at my disposal, to draw, examine and describe as I might feel inclined. Unfortunately I refused to take charge of the Indo-Scythic gold series for examination, finding nothing particularly new among them, the consequence of which was that the whole were stolen by some sharper at the hotel where the General was residing, and none have been since recovered! I am now speaking of last January!—Since then I have received a coin and drawings of several others from Genl. COURT;—also two or three from Genl. ALLARD; and latterly the whole produce of Capt. BURNES' search in the neighbourhood of *Cabul* has been entrusted to my care. It is the very latest arrival from him, (or rather from a valuable member of his expedition, Dr. LORD,) consisting of two beautiful coins of EUCRATIDES, that stimulates me at once to give forth all that have accumulated in my Bactrian drawer since I last wrote on the subject. I must give Dr. LORD's coins the first place because one of them is perhaps the most curious and important that has yet fallen into our hands.

Plate XXVII. contains etchings of both of these coins to which I would thus draw prominent attention:—they are copied from sketches faithfully executed by M. MASSON, aided by sealing-wax impressions enclosed in Capt. BURNES' letter to me, which were however partially injured by their long journey. Dr. LORD thus describes the place and circumstances of their discovery.

“ I do myself the pleasure to forward drawings, of two coins which (with many others of less value) I have been so fortunate as to find during my late visit to *Turkistan*. The drawings have been made by Mr. MASSON but should they not prove sufficient I shall be happy to forward you not only these but all my stock for examination. The double-headed coin I found at *Tash Korghán*, the other at *Kunduz*.”

Having been kindly promised a sight of the coins themselves, I have purposely reserved space in the plate for the insertion of facsimiles to be hereafter executed by my medal-ruling machine.

*Figure 2.* I need not particularly describe as, though new to us, it has been published from other specimens in *France*. The reverse has a naked figure of APOLLO in lieu of the DIOSCURI.

*Fig. 1.* Is an unique medallion (that is, a tetradrachma) of EUCRATIDES.

*Obverse.* A fine youthful head and bust of the king wearing a plain steel helmet, with the bands of the diadem protruding behind. On the area above and below—ΒΑΣΙΛΕΥΣ ΜΕΓΑΣ ΕΥΚΡΑΤΙΔΗΣ in the nominative case.

*Reverse.* Busts of a man and a woman looking to the right: hair simple and without diadem; legend above ΗΛΙΟΚΛΕΟΥΣ, below ΚΑΝΛΟΔΙΚΗΣ.

Supplying the word *vios*, we have here the parentage of EUCRATIDES developed in a most unexpected way: 'The great king EUCRATIDES, son of HELIOCLES and KANLODICE.' The former is a well known Greek name, but it is evident from the absence of title and diadem that he was a private person, and yet that his son having found his own way to the throne, was not ashamed of his unregal origin. The name of his mother, KANLODIKE however, is unknown and is decidedly not Greek. From the sound I have little hesitation in hazarding that it is the Sanskrit name कमलाधिका *Kamalādhikā*,—meaning 'superior to *Kamalā*, or *VENUS*, (alias 'fairer than the lily.')

This name in the vernacular of the present day would be pronounced exactly as the Greek legend has it, *kauñla* a lily, *kauñlādhikī*, and I think, bearing in mind our other evidence of the state of the vernacular dialects in the date of ASOKA, there can be little doubt of such being the correct derivation of the anomalous name thus adopted into the Greek.

EUCRATIDES then was the son of a Greek officer married to a lady of the country, whom we may set down as of Hindu parentage and language; and we may thence argue that a dialect mainly derived from the Sanskrit was then used in Bactria, or at least in the Panjāb, as in the present day, though now diluted to a large extent with Persian and Arabic introduced along with the Muhammadan religion.

In further proof of this position, we can now also adduce a *Pāli* inscription in the old character procured by Captain BURNES from the northern side of the great chain of mountains, near *Badakshān*; (which will be published in Plate XXXV. of the next number,) to say nothing of the *Pāli* reverses of the Agathocles and Pantaleon coins from the same region.

The natural inference is that we should seek the explanation of the legends on the reverses of the Bactrian coins rather through the medium of *Pāli* or *Zend*, as I attempted in 1835, than as has been preferred by M. JACQUET of Paris, through the medium of Syriac and Chaldaic, with what success I have not the means of judging\*.

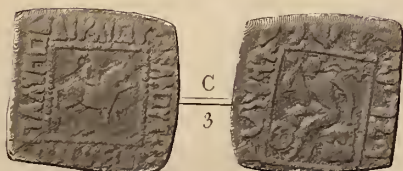
\* It will be proper here to notice that in 1836, M. JACQUET, obligingly forwarded to me a lithographed page of his readings of the Bactrian alphabet and

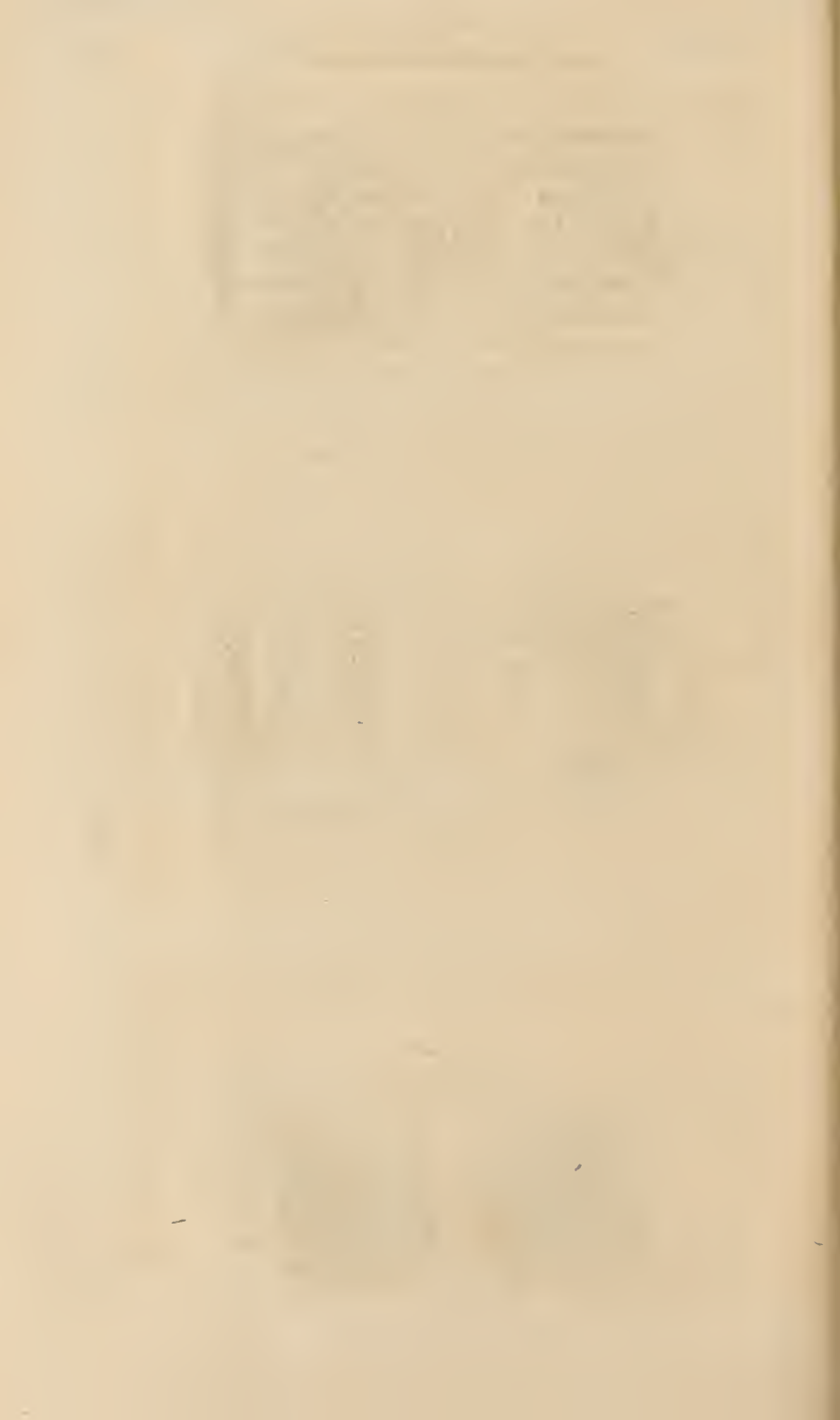


BACTRIAN COINS.



PALURMES





I have long been pledged to my readers (and to the critics of the Meerut magazine in particular) to give them a new alphabet for these Bactrian legends, and I think the time has now arrived when I may venture to do so; or at least to make known the modifications which have been elicited by the abundance of fresh names and finely preserved specimens which have passed under my eye since that epoch. It must be remembered that the only incontestable authority for the determination of a vowel or consonant is, its constant employment as the equivalent of the same Greek letter in the proper names of the Bactrian kings. Beyond this we have only analogies and resemblances to other alphabets to help us, and the conjectural assumption of such values for the letters that occur in the titles and epithets of royalty as may furnish an admissible translate of the Greek in each and every case.

It will be my object presently to shew that this can be done, as far as the coins are concerned, by means of the Sanskrit or rather the *Pāli* language; but in the first place it will be more convenient to bring forward my revised scheme of the alphabet as far as it is yet matured. Unfortunately the exceeding looseness of orthography and kalligraphy which could not but prevail when one foreign language, (for such it was to the Greek die-cutters), was attempted to be rendered by the ear in another character, equally foreign to the language and to the scribes, that with abundance of examples before me it is impossible to select the true model of some letters for the type-founder!

I begin with the initial vowels:

ॐ, *a*. This symbol continues to occupy the place of the vowel *a* in all the new names, lately added to our list, beginning with the Greek Α, of which we have now no less than seven examples. The other short initials appear to be formed by modifications of the alif as in the Arabic: thus.

ॐ, *e*, is constantly employed for the *e* of Greek names.

𑀓, *u*, is found following it in the word Eucratides, as though put for the Greek *υ*, but other evidence is wanting.

𑀔, *i*? though seldom met with on the coins is common in the inscriptions, and by analogy may be set down as *i*.

𑀕 and 𑀖, *ā*, *an*, is employed in words beginning with *AN*.

The medials seem to be formed in all cases by a peculiar system of names. In the modifications I now propose, however, I do not borrow one letter from his list, because in fact he has followed quite another track. His reading of 𑀧𑀭𑀮𑀯 is, *myrvā*, a Syriac word I believe for prince or noble. It was this which led to the expression of doubt of my own former alphabet, and to the just satire thereon in the Meerut Magazine.

𐎧, or 𐎧, *ju* (*tsa*?). The form of the Chaldaic *ts* 𐎧, agrees well with the first; indeed in many coins of *Azes* the Bactrian form is identical with

the Chaldaic ; I find that in every case this letter may be best represented by the Sanskrit ञ *j*, and indeed in the early coins of APOLLODOTUS, &c. its form Յ seems to be copied from the ancient Sanskrit ए, reversed in conformity with the direction of the writing. The only inflection I have met with of this letter is Յ *ju*.

I can make no discrimination between cerebrals and dentals ; because the Greek names translated have of course no such distinctions, but from the variety of symbols to which the force of *d* and *t* must be ascribed, I incline to think the alphabet is provided with a full complement, though it is in the first place indeed almost a matter of option which letter to call *d*, *t*, *r*, or *n*, they are all so much alike—thus for *t* we have Շ, Շ, Շ, and Շ, and with the vowel *i*, Շ, Շ, *f*.

As the equivalent of *d* again we have the same Շ, Շ, Շ, and also Շ, Շ, Շ : and for *dhi* Շ, and Շ, the former evidently Շ with Շ subjoined ; the latter quasi *tti* or *ddi* : sometimes it is nearer Շ *ri*.

I do not attribute this ambiguity to the letters themselves so much as to the carelessness and ignorance of the writers, who might pronounce the foreign name *Apollodotus*, indifferently *Apalátuda*, *Apaladata*, and even *Apalanata*. Being obliged to make a choice, I assume as in my former paper ;—

Շ, Շ, for *ta*, whence Շ *tá*, Շ *tí*, Շ or Շ *te*, and Շ *tra* ?

Շ, *tta*, *tha*, Շ *thi*, Շ, or Շ, *the*, but in fact these forms are as commonly used for *dh*, and its inflections.

Շ Շ, Շ, for *da*, *nda* : Շ, Շ, *di* ; Շ *de*, Շ *du* ; Շ, *dh*, Շ *dhi*.

Շ, Շ, *na*. I do not perceive any indications of the other nasals, and indeed they seem to be omitted when joined to another consonant : but I find some thing corresponding to the *anuswara* attached below the vowel *a*, and before consonants it seems represented by *m*, as Շ *mcha* ? Շ *mri*, Շ *mba* ?

Շ *pa*. The first of the labials is one of the best established letters. It has been discovered also inflected as Շ *pi*, Շ *pe* ; Շ *pu* ; and united with either *h* or *s* in Շ *pha* or *spa* : also with *li* in Շ *pli*, and in other combinations which will be noticed as they are brought forward. I suspect further that in Շ, -Շ, we have *pá*, and in Շ, *pra* : but the data are uncertain.

Շ, Շ, *pha* or *fa* ? I have no stronger reasons than before for continuing this value to Շ :—it seems in some few cases to usurp the place of *v* ; it is inflected also, as Շ *fe*, Շ *fu*, Շ *fra*.

Շ or α, *ba* ? is still undetermined ; in the doubtful name above quoted ΑΒΑΓΑΣΟΡ, it seems to be replaced by Շ or Շ—the aspirate is also unknown.



◡ *ma* ʒ. This letter admits of no doubt whatever ; but in the Menander form, ω, I now recognise the inflection *me*, corresponding with the Greek name more closely.—*Mi* is written ʔ ; *má*, ʒ or ʔ ; and ʒ may be *mu*. The second or what may be called the printed form of *m* has a considerable affinity in form with the old Sanskrit ॡ or ॢ, whence it may be almost as readily derived as the Burmese form of Páli, ၁.

Λ *ya*. This letter is unchanged : it invariably replaces *z*, and *y*, and sometimes *j* where the latter would be expressed by the Sanskrit य or ॡ. It may perchance have been modified from the letter, for in some examples it is turned up on the sides thus, ʍ ; the inflected form Λ *yi* is of common occurrence : ʎ *yu*, less common.

ʌ, ʎ, ʑ, *ra*. It is necessary to preserve these three representatives of *r* ; I incline to think that the prolongation below may be the *mátra* or the long *á* inflection, *rá* ; for the first form is used in *Ermaïou* where there is no intervening vowel. It is only distinguishable from *d* by the foot-mark of the latter, which seems to be often omitted notwithstanding : its inflections are ʎ, ʑ, ʒ, *ri*, *re*, *ru*.

ʎ, *la*. Further acquaintance has taught me that this is the only representative of Λ in Greek names : the instances wherein the *l* before appeared to be replaced by ʎ have been disproved by duplicate coins. The inflected form ʎ, *li*, has numerous examples among our new acquisitions. ʎ *le*, also occurs in inscriptions.

ʎ *va*, and ʎ *vi*, rest on strong but not undisputable authority, as will be seen below.

ʌ, ʎ, *ha*, has been removed from its former position as *l* on ample grounds ; and the value now assigned has I think equally strong support—though as far as Greek names are concerned it rests solely on the initial syllable of *Heliocles*, ʎ, *he*. There is, again a similarity worthy of remark between ʌ inverted, and the old Sanskrit *ha*, ॡ, ॢ.

ʔ, *sa*. To this letter I gave the sound of *o* on the former occasion, because I found it the general termination of nominatives masculine in Zend and Páli—replacing the Sanskrit *visarga*, *ah* or *as*. Since then I have found the same letter (affected with the vowel *i*) in two Greek names as the equivalent of *si*, ʔ, and I am too happy on other considerations to adopt this as its constant value ; whether the dental *s* of the Sanskrit will best represent it remains to be seen, but the nearest approximation in form occurs in the Hebrew ס *s* : there are certainly two other characters, ʔ, or ʔ, and ʔ, having the force of *s* or *sh*. The former I should presume to be the Sanskrit *sha* ॡ from its likeness to the old form ॡ. The latter, ʔ, may be a variation of Λ for which it is sometimes used, but rather by change of the Greek *z* to ʒ, than as being the same letter, for elsewhere it takes the place of the Greek ʒ

as in AZIAISOY, while Λ occurs for Z in the same word. In form it seems to be the Chaldaic 𐤠, or *th* soft. The inflections of these letters yet observed are, 𐤱 *si*, 𐤱𐤠 *se*, 𐤱𐤠𐤱 *su*; 𐤱𐤠 *shi*, 𐤱𐤠𐤱 *shu*; and their combinations with consonants are numerous,—𐤱𐤠 *sta*, 𐤱𐤠𐤱 *stá*; 𐤱𐤠𐤱𐤠 *sma?*; 𐤱𐤠𐤱𐤠𐤱 *ṣta*, 𐤱𐤠𐤱𐤠𐤱𐤠 *ṣmi?*

It will be naturally expected that the alterations I have been compelled to adopt in the value of many of the above letters must produce considerable modifications in my former interpretation of the Bactrian legends. Indeed when I look back at my attempt of 1835, I must confess that it was very unsatisfactory even to myself. I was misled by the *Nakshi-rustam* trilingual inscription, wherein the title of king of kings has been uniformly read as *malakán malaká*, though I balanced between this and the term *maharáo*, having found PAO on the Indo-Scythic series. But, once perceiving that the final letter might be rendered as *sa*, which is the regular *Páli* termination of the genitive case, I threw off the fetters of an interpretation through the Semitic languages, and at once found an easy solution of all the names and the epithets through the pliant, the wonder-working *Páli*, which seems really to have held an universal sway during the prevalence of the Buddhist faith in India.

The best test of the superiority of a *Páli* interpretation will be found in its application to the several royal titles of the Greek kings, which were previously quite unintelligible. The first of these is simply ΒΑΣΙΛΕΩΣ which is constantly rendered by 𐤱𐤠𐤱𐤠𐤱 *maharájasa*, the *Páli* form of महाराजस्य. It is true that there is some doubt whether the long vowel *á*, is here applied to the *h* and *r*; but we have long since been accustomed to the omission of this and even other vowels in the Satrap coins of *Suráshtra*. The word is often written 𐤱𐤠𐤱𐤠𐤱𐤠, whence I have supposed the dot or dash below to stand for *á*.

The next title is ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ, which we find replaced by 𐤱𐤠𐤱𐤠𐤱𐤠𐤱𐤠𐤱 *mahárájasa rájarájasa*, a perfectly sound and proper expression according to the idiom of the Sanskrit. But in one class of coins, that of AZES, there are some very well preserved specimens in which the second part of the title is 𐤱𐤠𐤱𐤠𐤱𐤠𐤱𐤠𐤱𐤠 which is evidently *rájátirájasa* (or *adhi* for the letter has a turn at foot and may be meant for 𐤱𐤠 *dhi*), the regular राजाधिराजस्य of the paramount sovereigns of India. The syllable *dhi* is often written 𐤱𐤠 *tí*, 𐤱𐤠 *ri* or even 𐤱𐤠𐤱 *ti* or *gi* (?) but the vowel *i* shews what is meant.

To the title of king of kings is generally added on the Greek side the epithet ΜΕΓΑΛΟΥ, for which we have an addition in Bactrian of the word 𐤱𐤠𐤱𐤠 *mahatasa*, one of the forms of the *Páli* genitive of *mahán* (or *mahat*) great, which makes only *mahatah* महतः in Sanskrit. The full title then is thus found to be *mahárájasa rájadhírájasa mahatasa*,

which is far preferable to the clumsy and unsatisfactory *malakao kak-kao malako* of my former paper, now rectified by the rejection of 𑀓 as *ka*.

The next title in the list is ΣΑΤΗΡΟΣ, for which we have rather a dubious word of four letters either 𑀧𑀲𑀭𑀸𑀓 *dadatasa*, or 𑀧𑀲𑀭𑀸𑀓 *nandatasa*, the former equivalent to दत्तः the bestower of *dāna*, a word comprehending protection as well as charity;—the latter to नन्दनः ‘of the giver of pleasure.’

The epithet of next frequency is ΑΝΙΚΗΤΟΡ the unconquered, which is translated by 𑀧𑀲𑀭𑀸𑀓 *apavihatasa* (Sans. अपविहतस्य) the unbeaten, or invincible. It is this word principally which leads me to make 𑀲 *va*, and to distinguish it from 𑀲 *ti* and 𑀲 *li*, with the latter of which I before confounded it.

Next in order comes the somewhat similar expression ΝΙΚΗΦΟΡΟΡ; but the correct definition of this epithet is preserved in 𑀧𑀲𑀭𑀸𑀓 *jayadharasa*, the bearer of victory. In one instance the *dh* is written separately 𑀧𑀲𑀭𑀸𑀓; in others (like the *dh* of *adhi*) it is 𑀧𑀲𑀭𑀸𑀓, *jayadarasa*, but there can be little doubt of the sense; and this word is a strong confirmation of the value of the letter 𑀲, or 𑀲 *ja*.

There is a second epithet of nearly the same signification which is common enough on the Seleucidan coins, but comparatively rare in those of Bactria, ΝΙΚΑΤΟΡΟΣ. This epithet was found on the unique coin of ΑΜΥΝΤΑΣ of which Col. STACY was unfortunately robbed, and on one or two others. In the Bactrian translation the same word is used in every case as for ΝΙΚΗΦΟΡΟΡ, namely, 𑀧𑀲𑀭𑀸𑀓 *jayadharasa*, the possessor of victory, or the victorious.

There remains but one epithet to be accounted for (for ΦΙΛΟΠΑΤΡΟΣ of the ΑΠΟΛΛΟΔΟΤΗΣ unique coin does not seem to be translated):—it occurs on the coins of ΗΛΙΟΚΛΗΣ, ΣΠΑΛΥΡΜΕΣ, and ΑΡΧΕΛΙΕΣ; I mean ΔΙΚΑΙΟΡ ‘the just’—a rare epithet in any but the Arsacidan line of kings.—This is everywhere rendered by 𑀧𑀲𑀭𑀸𑀓 *dhamikasa* (Sans. धर्मिकस्य) the exact expression required, and one constantly applied to Indian kings.

I am wrong in saying that the epithets are here exhausted, for on the unique coin of *Agathocleia* in Dr. SWINEY’S possession, there is a singular epithet ΘΕΟΤΡΟΠΟΡ ‘heavenly disposed,’ yet unaccounted for: of this the two or three first letters are lost, and the last two 𑀧𑀲 *tasa* may terminate *devamatasa* or some such simple translation. It is a curious fact that the name of the queen does not appear to be feminine in the Bactrian legend; and the title *mahārājasa* is also in the masculine.

There is another expression on a coin of *Spalurmes*, viz. “king’s brother,” ΣΠΑΛΥΡΜΟΣ ΔΙΚΑΙΟΡ ΑΔΕΛΦΟΡ ΤΟΥ ΒΑΣΙΛΕΩΣ, the Bactrian.





but it may be doubted whether all these are not in reality the same name פֶּרַחֶשׁ *Farahetasa* coupled with the title corresponding to ΣΩΤΗΡΟΣ written in a loose manner.

On the reverse of the coins of the second HERMÆUS (or perhaps the third) having a Hercules for reverse, commences another series of native names, forming what we have designated the *Kadphises* or *Kadaphes* group. After the change from ΕΡΜΑΙΟΥ on the obverse, to ΚΑΔΦΙΖΟΥ, we have still precisely the same reverse as before, and it is preserved through a numerous series;—the title of mahārāja is not to be found, nor is it easy to see where to commence either the Greek reading ΚΟΣΩΛΑ ΚΑΔΦΙΖΟΥ or the Bactrian פֶּרַחֶשׁ פֶּרַחֶשׁ פֶּרַחֶשׁ פֶּרַחֶשׁ which may be transcribed *dhama + rata Kujulakasa sabashakha* (?) *Kadaphusa*:—in this reading if we can make out nothing else there are at least the two names *Kosoula* (also written *Kozulo* and *Kozola*) and *Kadphizes* (also written *Kadaphse* and *Kadphises*) accounted for. The distinctions on the small coin of ΚΟΠΑΝΟΥ ΖΑΘΟΥ ΚΑΔΦΕC I am unable as yet to make out for want of further samples.

Connected with the same family we then come to the long inscription on the *Mokadphises* coins which may be read by comparison of a great many examples:—

מַהֲרַאָּסָּא רַאָּדְהִירַאָּסָּא סַבַּטְרַאָּכָּא יַחַאָּכָּא מַהִּיֶּהָרַאָּסָּא דְּהִי מַנַּדְפִּישָּׁא נַנַּדַּטָּא

*Mahārājasa rajadhirājasa sabatracha ihacha mahiharasa dhi manadphiṣasa nandata.*

‘Of the great sovereign, the king of kings both here and every where seizing the earth, &c. MOKADPHISES, the saviour?’

I do not insist upon any of these epithets *sabatra mahidharasa*, for in fact they vary in every specimen. The *dhi* also looks in many coins more like *dha*, quasi *dhama Kadphisasa*. On some the reading is rather *sabalasa saviratasa mahichhitasa* (महीचिहितः sovereign?) On some gold coins again the name more resembles פֶּרַחֶשׁ פֶּרַחֶשׁ *varahima Kadphisasa*, agreeing with the Greek ΟΟΗΜΟ ΚΑΔΦΙΧΗC.

It remains only to apply my theory of the Bactrian alphabet to the inscriptions on the cylinders and stone slabs extracted from the topes at *Manikyāla*, &c. but this is a task of much more serious difficulty and one not to be done off hand as all the rest has been!—I must therefore postpone the attempt until I am better prepared with my lesson; and meantime I will proceed to describe briefly the contents of

#### Plate XXVIII.

*Fig. 1.* is a small silver Euthydemus in Captain BURNES’ collection: it resembles exactly the medallions already published of the same prince. Weight, 62 grs. See Pl. XXV. Vol. IV. fig. 1.



*Fig. 2.* is a hemidrachma of DEMETRIUS also belonging to Captain BURNES. See one figured from General VENTURA's collection, Vol. IV. Pl. XXV. fig. 2.

Fig. 3, a silver coin of *Antialcidas*, presented to me by General VENTURA. Execution very good. Weight  $10\frac{1}{2}$  grains.

*Obverse.* ΒΑΣΙΛΕΩΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΑΔΕΥΣ. Head of the king with a flat helmet shaped like a cocked hat :—chlamys on the shoulders, and diadem seen under the hat.

*Reverse.* Bactrian legend מלך יהודא מלך יהודא *maharajasa jayadharasa Antialikidasa*. Jupiter seated holding a small figure of victory:—at his feet to the right, the forepart of a small elephant with trunk elevated. Monogram on the left composed of P and A\*.

Fig. 4. a similar drachma of *Lysias*, belonging to General VENTURA: unique.

*Obverse.* ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΑΥΣΙΟΥ. Head of the king, with the Demetrius helmet, shaped like an elephant's head.

*Reverse.* Bactrian legend, מלך מלכות ליסיאס *mahárajasa apavihatasa Lisiasa*. (The copper square pieces have *Lisikasa*). HERCULES naked standing, with club and lionskin, as on the coins of DEMETRIUS.

*Figs. 5, 6.* Two varieties of MENANDER, not yet depicted in the journal, given to me by General VENTURA, who has many of a similar nature. In one the prince wears a handsome helmet, in the other he has the simple diadem. The reverse of both agrees with the one engraved in Pl. XXVI. Vol. IV. except that MINERVA looks in the contrary direction.

HELIOCLES, *king of Bactria.*

*Fig. 7.* The first coin of HELIOCLES which I have yet seen in India. It belongs to General VENTURA : a square copper or bronze piece in excellent preservation.

*Obverse.* ΒΑΣΙΛΕΩΣ ΔΙΚΑΙΟΥ ΗΛΙΟΚΛΕΟΥΣ. Diadem'd head of the  
'just king, HELIOCLES,' somewhat similar in features to EUCRATIDES.

*Reverse.* Bactrian legend,  $\text{𐭅𐭆𐭇𐭈𐭉𐭊𐭋𐭌𐭍𐭎𐭏𐭐𐭑𐭒𐭓𐭔𐭕𐭖𐭗𐭘𐭙𐭚𐭛𐭜𐭝𐭞𐭟𐭠𐭡𐭢𐭣𐭤𐭥𐭦𐭧𐭨𐭩𐭪𐭫𐭬𐭭𐭮𐭯𐭰𐭱𐭲𐭳𐭴𐭵𐭶𐭷𐭸𐭹𐭺𐭻𐭼𐭽𐭾𐭿𐮀𐮁𐮂𐮃𐮄𐮅𐮆𐮇𐮈𐮉𐮊𐮋𐮌𐮍𐮎𐮏𐮐𐮑𐮒𐮓𐮔𐮕𐮖𐮗𐮘𐮙𐮚𐮛𐮜𐮝𐮞𐮟𐮠𐮡𐮢𐮣𐮤𐮥𐮦𐮧𐮨𐮩𐮪𐮫𐮬𐮭𐮮𐮯𐮰𐮱𐮲𐮳𐮴𐮵𐮶𐮷𐮸𐮹𐮺𐮻𐮼𐮽𐮾𐮿𐯀𐯁𐯂𐯃𐯄𐯅𐯆𐯇𐯈𐯉𐯊𐯋𐯌𐯍𐯎𐯏𐯐𐯑𐯒𐯓𐯔𐯕𐯖𐯗𐯘𐯙𐯚𐯛𐯜𐯝𐯞𐯟𐯠𐯡𐯢𐯣𐯤𐯥𐯦𐯧𐯨𐯩𐯪𐯫𐯬𐯭𐯮𐯯𐯰𐯱𐯲𐯳𐯴𐯵𐯶𐯷𐯸𐯹𐯺𐯻𐯼𐯽𐯾𐯿𐰀𐰁𐰂𐰃𐰄𐰅𐰆𐰇𐰈𐰉𐰊𐰋𐰌𐰍𐰎𐰏𐰐𐰑𐰒𐰓𐰔𐰕𐰖𐰗𐰘𐰙𐰚𐰛𐰜𐰝𐰞𐰟𐰠𐰡𐰢𐰣𐰤𐰥𐰦𐰧𐰨𐰩𐰪𐰫𐰬𐰭𐰮𐰯𐰰𐰱𐰲𐰳𐰴𐰵𐰶𐰷𐰸𐰹𐰺𐰻𐰼𐰽𐰾𐰿𐱀𐱁𐱂𐱃𐱄𐱅𐱆𐱇𐱈𐱉𐱊𐱋𐱌𐱍𐱎𐱏𐱐𐱑𐱒𐱓𐱔𐱕𐱖𐱗𐱘𐱙𐱚𐱛𐱜𐱝𐱞𐱟𐱠𐱡𐱢𐱣𐱤𐱥𐱦𐱧𐱨𐱩𐱪𐱫𐱬𐱭𐱮𐱯𐱰𐱱𐱲𐱳𐱴𐱵𐱶𐱷𐱸𐱹𐱺𐱻𐱼𐱽𐱾𐱿𐲀𐲁𐲂𐲃𐲄𐲅𐲆𐲇𐲈𐲉𐲊𐲋𐲌𐲍𐲎𐲏𐲐𐲑𐲒𐲓𐲔𐲕𐲖𐲗𐲘𐲙𐲚𐲛𐲜𐲝𐲞𐲟𐲠𐲡𐲢𐲣𐲤𐲥𐲦𐲧𐲨𐲩𐲪𐲫𐲬𐲭𐲮𐲯𐲰𐲱𐲲𐲳𐲴𐲵𐲶𐲷𐲸𐲹𐲺𐲻𐲼𐲽𐲾𐲿𐳀𐳁𐳂𐳃𐳄𐳅𐳆𐳇𐳈𐳉𐳊𐳋𐳌𐳍𐳎𐳏𐳐𐳑𐳒𐳓𐳔𐳕𐳖𐳗𐳘𐳙𐳚𐳛𐳜𐳝𐳞𐳟𐳠𐳡𐳢𐳣𐳤𐳥𐳦𐳧𐳨𐳩𐳪𐳫𐳬𐳭𐳮𐳯𐳰𐳱𐳲𐳳𐳴𐳵𐳶𐳷𐳸𐳹𐳺𐳻𐳼𐳽𐳾𐳿𐴀𐴁𐴂𐴃𐴄𐴅𐴆𐴇𐴈𐴉𐴊𐴋𐴌𐴍𐴎𐴏𐴐𐴑𐴒𐴓𐴔𐴕𐴖𐴗𐴘𐴙𐴚𐴛𐴜𐴝𐴞𐴟𐴠𐴡𐴢𐴣𐴤𐴥𐴦𐴧𐴨𐴩𐴪𐴫𐴬𐴭𐴮𐴯𐴰𐴱𐴲𐴳𐴴𐴵𐴶𐴷𐴸𐴹𐴺𐴻𐴼𐴽𐴾𐴿𐵀𐵁𐵂𐵃𐵄𐵅𐵆𐵇𐵈𐵉𐵊𐵋𐵌𐵍𐵎𐵏𐵐𐵑𐵒𐵓𐵔𐵕𐵖𐵗𐵘𐵙𐵚𐵛𐵜𐵝𐵞𐵟𐵠𐵡𐵢𐵣𐵤𐵥𐵦𐵧𐵨𐵩𐵪𐵫𐵬𐵭𐵮𐵯𐵰𐵱𐵲𐵳𐵴𐵵𐵶𐵷𐵸𐵹𐵺𐵻𐵼𐵽𐵾𐵿𐶀𐶁𐶂𐶃𐶄𐶅𐶆𐶇𐶈𐶉𐶊𐶋𐶌𐶍𐶎𐶏𐶐𐶑𐶒𐶓𐶔𐶕𐶖𐶗𐶘𐶙𐶚𐶛𐶜𐶝𐶞𐶟𐶠𐶡𐶢𐶣𐶤𐶥𐶦𐶧𐶨𐶩𐶪𐶫𐶬𐶭𐶮𐶯𐶰𐶱𐶲𐶳𐶴𐶵𐶶𐶷𐶸𐶹𐶺𐶻𐶼𐶽𐶾𐶿𐷀𐷁𐷂𐷃𐷄𐷅𐷆𐷇𐷈𐷉𐷊𐷋𐷌𐷍𐷎𐷏𐷐𐷑𐷒𐷓𐷔𐷕𐷖𐷗𐷘𐷙𐷚𐷛𐷜𐷝𐷞𐷟𐷠𐷡𐷢𐷣𐷤𐷥𐷦𐷧𐷨𐷩𐷪𐷫𐷬𐷭𐷮𐷯𐷰𐷱𐷲𐷳𐷴𐷵𐷶𐷷𐷸𐷹𐷺𐷻𐷼𐷽𐷾𐷿𐸀𐸁𐸂𐸃𐸄𐸅𐸆𐸇𐸈𐸉𐸊𐸋𐸌𐸍𐸎𐸏𐸐𐸑𐸒𐸓𐸔𐸕𐸖𐸗𐸘𐸙𐸚𐸛𐸜𐸝𐸞𐸟𐸠𐸡𐸢𐸣𐸤𐸥𐸦𐸧𐸨𐸩𐸪𐸫𐸬𐸭𐸮𐸯𐸰𐸱𐸲𐸳𐸴𐸵𐸶𐸷𐸸𐸹𐸺𐸻𐸼𐸽𐸾𐸿𐹀𐹁𐹂𐹃𐹄𐹅𐹆𐹇𐹈𐹉𐹊𐹋𐹌𐹍𐹎𐹏𐹐𐹑𐹒𐹓𐹔𐹕𐹖𐹗𐹘𐹙𐹚𐹛𐹜𐹝𐹞𐹟𐹠𐹡𐹢𐹣𐹤𐹥𐹦𐹧𐹨𐹩𐹪𐹫𐹬𐹭𐹮𐹯𐹰𐹱𐹲𐹳𐹴𐹵𐹶𐹷𐹸𐹹𐹺𐹻𐹼𐹽𐹾𐹿𐺀𐺁𐺂𐺃𐺄𐺅𐺆𐺇𐺈𐺉𐺊𐺋𐺌𐺍𐺎𐺏𐺐𐺑𐺒𐺓𐺔𐺕𐺖𐺗𐺘𐺙𐺚𐺛𐺜𐺝𐺞𐺟𐺠𐺡𐺢𐺣𐺤𐺥𐺦𐺧𐺨𐺩𐺪𐺫𐺬𐺭𐺮𐺯𐺰𐺱𐺲𐺳𐺴𐺵𐺶𐺷𐺸𐺹𐺺𐺻𐺼𐺽𐺾𐺿𐻀𐻁𐻂𐻃𐻄𐻅𐻆𐻇𐻈𐻉𐻊𐻋𐻌𐻍𐻎𐻏𐻐𐻑𐻒𐻓𐻔𐻕𐻖𐻗𐻘𐻙𐻚𐻛𐻜𐻝𐻞𐻟𐻠𐻡𐻢𐻣𐻤𐻥𐻦𐻧𐻨𐻩𐻪𐻫𐻬𐻭𐻮𐻯𐻰𐻱𐻲𐻳𐻴𐻵𐻶𐻷𐻸𐻹𐻺𐻻𐻼𐻽𐻾𐻿𐼀𐼁𐼂𐼃𐼄𐼅𐼆𐼇𐼈𐼉𐼊𐼋𐼌𐼍𐼎𐼏𐼐𐼑𐼒𐼓𐼔𐼕𐼖𐼗𐼘𐼙𐼚𐼛𐼜𐼝𐼞𐼟𐼠𐼡𐼢𐼣𐼤𐼥𐼦𐼧𐼨𐼩𐼪𐼫𐼬𐼭𐼮𐼯𐼰𐼱𐼲𐼳𐼴𐼵𐼶𐼷𐼸𐼹𐼺𐼻𐼼𐼽𐼾𐼿$

*Fig. 8.* A less perfect coin of the same king presented by the General to myself.

\* N. B. The etching of this coin is a total failure : the plate was laid by for several months and the acid would then barely touch it. In retracing it the native engraver has quite wandered from my original, and I perceive it too late for alteration on more than half the edition of the plate.

† The letter ढ might be better read *Sra*; ॡ *Sri*: which would give a Sanskrit version of the name,—*hēlyasriyasya*, ‘having a sun-like prosperity.’



nue\* à tous les savants et voyageurs Anglais qui, depuis plusieurs années se sont appliqués avec un zèle si louable à recueillir ces précieux monuments de la civilisation Grecque enfouis dans le sol de l'Inde : et l'exemplaire que nous devons à M. le général ALLARD, et que je publie, est encore unique. La fabrique, qui ressemble à celle de la médaille du roi anonyme, *que j'ai fait connaître*†, accuse sensiblement une époque de décadence, d'accord avec la forme carrée du  $\Gamma$  et de l' $\square$  qui commencent à paraître sur la monnaie des Arsacides, à partir de Phraate III. à une époque qui doit s'éloigner bien peu de l'âge de notre Lysias. On pourrait voir un autre rapport entre cette monnaie Bactrienne et les médailles du même prince Arsacide, dans le titre de *juste*, ΔΙΚΑΙΟΥ, qui se lit habituellement sur les médailles de Phraate III. .... mais ce qui constitue ici la particularité la plus remarquable et la plus neuve, c'est la qualification d' *Adelphe*, ΑΔΕΛΦΟΥ, affectée par Lysias, &c."

When the mistake of attributing this coin to the wrong person is corrected, it is curious how perfectly the observations of the learned antiquarian of Paris confirm the conjecture to which I have been led by the deciphering of the Bactrian legend :—the coin is that of the 'son of a king *Spalahara* or *Balahara* ;' in bearing the effigy of HERCULES it agrees with the corrupted coins of HERMÆUS II. and others of the Pherres or *Phrahetasa* (Phraates?) type, which appear to belong to one family. M. R. DE R. agrees with our discoverer MASSON in locating them in an Indo-Greek dynasty at *Nysa*,—or near *Jelálábád*, where their coins are found in the greatest abundance.

I have purposely introduced an engraving of a very perfect specimen of this coin given to me by Mr. TREVELYAN who got it from MOHAN LAL, as figure 3 of Plate XXVII. It is ruled by the medal-ruling machine and is of course perfectly accurate, though indistinct.

It may be remembered that the name of VONONES is not found on the Bactrian side of his coins, but a totally different word,  $\text{𑀧𑀲𑀭𑀸𑀓}$  *Balaharasa* as I read it, or perhaps *Baláharasa* (बलारहस्य) the patron of

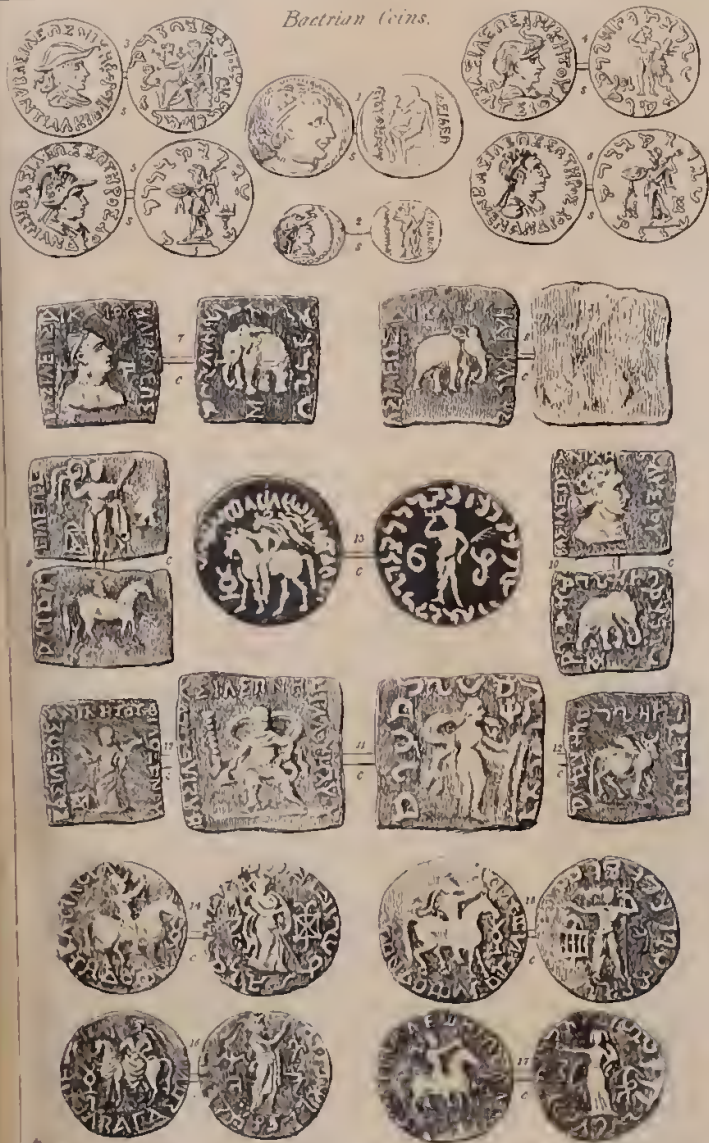
\* The drawing of the very coin described by M. R. DE R. was published by myself in June, 1835, but I did not deem the name legible, nor has it proved so at *Paris*, by their making Lysiou out of Spalurmou. I stated my reason for not publishing earlier to be, that I might not forestall the As. Soc. of *Paris* in describing General VENTURA'S splendid collection.

† It is not obvious in what this great resemblance consists?—one coin is square, the other round :—one has a Greek legend only ; the other a bilingual one—the equestrian figure is the *obverse* in one, the reverse in the other. The anonymous coin was first published in the Asiatic Researches in 1831, and in the Journal for 1833 and 1834.





Bactrian Coins.







in the Satrap coins of *Suráshtra*. The native kings were apparently allowed to have the copper coin to themselves. The religion here however is polytheistic, the effigy that of Hercules or *Baladeva*.

Without insisting upon their being the same person, I cannot help mentioning that the name of *Balarishi* is found as one of four brothers by different mothers who cut a conspicuous figure in Indian fable. *Balarishi*, *Vicramarka*, *Bali*, and *Bhartrihari*; the second of these is the celebrated *Vicramáditya*, whose reign falls 56 years before Christ, and he was the son of one *Gandha-rupa* or, as the fable has it, of a *gandharva* in the mortal disguise of an ass: WILFORD interprets the tale by making *Vicramáditya* the son of *BAHRAM GOR* of *Persia* by an Indian princess, and, to account for the anachronism of 400 years, is forced to imagine there were several kings of the same name,—which would be likely enough if he admitted (as seems certain from our coins) that *Vicramáditya* is a mere title. We shall presently allude again to this circumstance.

*Fig. 11.* From General VENTURA's collection. A more perfect specimen of a hitherto illegible coin. It is now seen to belong to *MAYES*.

*Obverse.* ΒΑΣΙΑΕΥΣ ΒΑΣΙΑΕΩΝ ΜΕΓΑΛΟΥ ΜΑΥΟΥ. Front figure of the king seated on a chair or throne, a shawl (?) on his shoulders, and a club or knotted sceptre in his right hand like that given to *Mokadphis*.

*Reverse.* Much worn and indistinct, a female holding some object like a scarf with both hands, and having a flowing robe behind, like that of the *VONONES* group. Bactrian legend 𑀧𑀭𑀮𑀺𑀲𑀸𑀓 𑀧𑀺𑀲𑀸𑀓 𑀧𑀺𑀲𑀸𑀓𑀲𑀺𑀲𑀸𑀓𑀲𑀺𑀲𑀸𑀓𑀲𑀺𑀲𑀸𑀓 *rájadhi rajasa mahatasa maasa*, and on the field 𑀮𑀺𑀲𑀸𑀓 used numerically (?).

The discovery of this rare specimen, only the third known of the prince whose name it bears\*, will be highly gratifying to the numismatists of *Paris*. It will in the first place remove the doubt entertained by M. *RAOUL DE ROCHETTE* himself whether the un-Greek appellation *Mayes* might not be used for *Mao*, the moon, as a divinity and not as a king; or whether united to the title ΒΑΣΙΑΕΥΣ the compound may not be equivalent to the name of *Apollodotus*; “ce n'est là, du reste, qu'une conjecture que je soumets avec beaucoup de défiance aux lumières de nos philologues indianistes, desquels seuls il est permis d'espérer la solution de ce curieux problème.”

The problem is now solved so far that we find him an earthly sovereign with similar titles to those of *AZES*,—and that he is not *APOLLODOTUS*! The native name composed of three letters, I should have for-

\* I have just received another *Mayes* of different type from Capt. *BURNES*, too late for insertion here.—J. P.



*Fig. 13,* is a specimen in good relief lately sent down to me by General ALLARD; there was another in the collection sent home by General COURT under care of M. MEIFREDY, of which I was favored with a sight of the drawing. On this the name on the Greek side was entire, and thence I am enabled to complete my description.

*Obverse.* ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ ΎΝΔΟΦΕΡΡΟΣ,—rāja in a brahmanical dress, upper part of the body naked—on the head a turban (?) with flowing fillets. The small figure of victory holding a chaplet over him forms the peculiarity of the device of which there are yet but three samples. The monogram which was before so unintelligible to us, I now recognise as a combination of two letters of the old Sanskrit alphabet ४ and ॥ *m* and *n*\*.

*Reverse.* Whether the figure in a brahmanical costume holding a trident in the right hand and a palm branch in the left is Neptune, Siva, the river *Indus*, or the king, I am not sufficiently initiated in the art to determine. No two reverses seem to be exactly alike though formed of the same materials; the legend on the present in Bactrian is

טלען לעצן פארעם און פאלקס

*Maharajasa rajarajasa nandatasa jayadharasa (?) Farhetasa.*

I do not pretend to be satisfied with the last epithet, nor with the name, which however I collate with M. COURT's. I have conceived it possible on a former occasion that it referred to PHRAHATES the predecessor of VONONES, or another of the same name : but there are too many uncertain letters in it to build theories safely upon. At any rate the same name of five letters here seen below the figure of Siva, is found on *all* the rude coins ascribed formerly to *Unad* (now corrected to) *Undo-pherres*, with exception of the penultimate letter which is there always formed like an *f*.  $\text{P}\text{f}\text{I}\text{I}\text{I}\text{I}$ , *fara-etisa*, (?) to which  $\text{P}\text{I}\text{I}\text{I}$  *nandatasa* (soteros) is invariably added—on M. COURT's coin this epithet may be preferably read  $\text{P}\text{I}\text{I}\text{I}$  great !

On the area are two Bactrian letters 𐰸𐰺, which might be profanely taken for 'six shillings' by an uninitiated handler!

*Fig. 14.* A variety of the same group, in General VENTURA's recent collection. In this the horseman looks in the opposite direction, and the beginning of the name  $\Upsilon\Delta\text{O}\Phi\epsilon\rho\rho\text{o}$  is visible. The monogram is composed of  $\text{Y}$  and  $\text{J}$ ,— $\text{Y}$  *mya*.

On the reverse, a well clad female holding still the trident (though it looks more like the cross) walks to the left—a Greek and a Bactrian monogram on either side, of complex form : legend as before, the name below,  $\text{P}\gamma\chi\varsigma\phi$ .

\* I may here note that fig. 14, Pl. XLVI. of vol. V. is also a coin of  $\gamma\psi\varsigma\phi$  *Farheta*, with the letters  $\begin{smallmatrix} \text{Y} \\ \downarrow \end{smallmatrix}$  as a central symbol.

*Fig. 15.* Another novelty from General VENTURA's store, of which a duplicate has been sent to France by M. COURT.

In all respects but the name the obverse corresponds with the foregoing. The name in the two coins yet brought to light of this species is quite distinctly ΓCNAΔCΦAPCΥ, which is either another member of the family or a corruption of the last.

The erect front-faced figure on the reverse is dressed in the Hindu dhoti—and extends his hands over a new symbol of gridiron fashion—in his left hand is the trident. This figure has been conventionally styled 'Siva' when he appears with his bull on the Indo-Scythic coins. The native name is as before ΠΥΤΣΥ *Farahetasa* with the addition of ΠΥΞΥΣ *netadharasa* 'the bearer' of something not very intelligible unless we make the first syllable ΛΥ *jaya*, victory.

Referring to the observations in a preceding page about the brothers of VICRAMADITYA, I cannot forbear mentioning that in *Gondophares* we might almost recognize the father of VIKRAMADITYA himself; for in the word Gondo-phares we have a signification not very remote from *Gandha-rupa*; *φapos* being pallium, vestis exterior,—the compound may mean 'having a cloak made of the skin of the *gandha*, *gonda*, *gor*, or wild ass.' Whence may have originated the fable of the Parthian king doomed to assume the guise of an ass during the day.

These are speculations certainly much in the WILFORD strain, but the curious coincidence in so many names is enough to lead even a matter of fact man aside from the justifiable deductions of sober reason.

*Fig. 16*, like the last adds a new name to the Bactrian list. The coin, a thick copper piece in tolerable preservation was sent down to me by General ALLARD a short time ago: it is as yet I believe unique.

*Obverse.* (βασιλεως βασιλεων μεγαλου) ΑΒΑΓΑΣ□V—'of the great king of kings Abagases:' there may perhaps be another letter before the A. The king, known by the flowing fillets of his diadem, seems dressed in a petticoat, *rāja* fashion—and he sits sideways on a richly caparisoned horse, looking to the right. Monogram Y as before, but with the Bactrian letter 7 beneath it.

*Reverse.* The same royal personage (by the fillets) as if performing the functions of high priest. The dress is so precisely Indian that I feel disappointed in not finding a regular Sanskrit name below; nor can I produce much of accordance between the Bactrian and Greek names—the letters are ΠΠΦΣΥ or ΠΠΦΣΥ7 *abakhafasa*. On the field are various insulated alphabetic symbols,—Bactrian and Greek, and under the latter, one which looks like a modern Nāgari न, न, but is more probably the Bactrian λ.



The last figure in the plate (from General VENTURA's store) is a duplicate of the AZES coin published as fig. 22 of Pl. XXIII. vol. IV. (1835). Between the two one important fact is established, namely that at this period of the AZES dynasty the use of the Greek was entirely lost, while the native character was written with greater correctness in the same or rather the inverse ratio. The Greek legend is a mere jumble of letters, but the Bactrian reads continuously

טעלעפאן פארשטאנד פארשטאנד פארשטאנד

*Maharajasa mahatasa dhamikasa rájaṭirajasa Ayasa.*

'Of the great king, the mighty, the just, the king of kings, AZES.'

The figure of Abundance with her cornucopia has a compound symbol on the left which might be read *Sri*, her Indian name; and on the right the two letters  $\text{ṣ}$  *kha* and *dha*, used numerically?

The perfect Greek medals of Bactria proper, however beautiful as works of art, ought not to turn away our attention from these corrupted and 'barbarous' specimens which mark the decadence of Greek dominion and Greek skill. These are the most precious to the student of Indian history:—through their native legend he may yet hope to throw light on the obscure age of VIKRAMADITYA,—and the Scythian successors of the Greeks on the north of India. Hitherto these classes of rude coins, though very numerous, have been much disregarded, and on that account I now invite attention to them, and promise to return to the task myself when I have fresh materials collected and arranged; my text being 'those coins on which the native and Greek legends differ, or record different names.'

P. S. My readers will perceive that two coins in the foregoing plates are engraved with a ruling machine, and will judge therefrom that my long cherished expectation of having such an instrument from England has at length been realized.

Such is indeed the case—the medal ruler promised by BATE and Co. to be even superior to their own is come after two years' delay:—but instead of being their patent instrument, warranted to correct all distortion in the engraving of the object ruled, it is precisely the original defective instrument which has long been discarded as unfit for use.

It is hardly possible to believe that a respectable optician so high in his profession as Mr. BATE would wish to impose on the credulity of an Indian customer, albeit we ‘Nabobs’ are frequently looked upon as fair game for inferior articles and extravagant charges\*:—yet there

\* Of this I have myself had several examples. Some WOLLASTON'S Barometric Thermometers were sent out by a first-rate house to a Civilian, war-

are many strong points of internal evidence which would bear me out in asserting that the instrument now before me has been made a long time—has been patched up for experimental trials by its maker—has been thrown aside in favor of his new invention, and has been now been finally brushed up for exportation to India!

After bringing so serious a charge forward, it becomes my duty to support it with proof:—and this I can do from Mr. BATE's own written instructions, which bid me “where the coin is in high relief, to lessen the angle of axis *B*. to diminish the effects of distortion;” whereas in the following description of his patent, he prides himself on his son's having obviated all distortion\*. He begins with a description of the original or American instrument illustrated by a diagram, which I have introduced as fig. 1. into the accompanying Plate XXIX.

“*a*, being the medal; *b*, the copper plate covered with an etching-ground; *c*, the tracer; and *d*, the etching-point at right angles to it.

“The arm *c d* having a ruling motion horizontally across the surfaces of *a* and *b*, and likewise moving freely in the direction *c d*. Also vertical motion being given to *a* and horizontal to *b* by the same screw: a series of lines traced over the medal were described upon the plate in the following manner: so long as the tracer moved over the plane surface or ground of the medal, the point *d* described equidistant straight lines upon the plate; but so soon as the tracer touched a part of the raised surface or relief of the medal, it was raised above its plane a quantity equal to the height of such relief, and the line described by the etching-point was no longer equidistant, but deviated an equal quantity upon the horizontal plate: in the succeeding line, the tracer being raised off still further by the increased height of the relief, the etching-point deviated still further from the former line described upon the plate: the continuation of this process produced a succession of deviating lines upon the plate, which opening as the tracer rose above the plane of the medal, and closing again as it approached that plane gave the effect of light and shade in the printed impression of the plate. But however pleasing the effect of these impressions, they were all *distorted* representations of the original, just so much as the lines producing the representation deviated from the straight line upon the medal—and I found that this distortion had suspended the use of the process which had been described 14 years before in the *Manuel de Tourneur*. The most valuable subjects, those having the highest relief, being most distorted.”

Here let me pause—the defects above condemned, are possessed in the fullest degree by the ruler sent to me:—the tracer describes straight lines *only* across the medal, while the diamond engraving point traces curves deviating in proportion to the relief of each part:—so that if the relief of the central point of the medal be one-tenth of an inch raised, and the angle of axis *b* be fixed at  $45^{\circ}$ †, the same point will be wanted not to break!—the bulbs were so thick that when heated even to  $300^{\circ}$  Farh., there was no chance of the mercury making its appearance in the tube! It was doubtless calculated by the makers that they would never even be tried, much less used!

\* See Philosophical Magazine 1833, vol. 2, page 288.

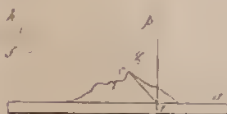
† Without a drawing of the instrument it is almost impossible to explain what is meant by axis *A* and axis *B*. The first is the axis upon which the rod holding the tracing point turns in rising over the raised parts of the medal, and

*Bates Medal Ruler*

*Fig 1*



*Fig 2*





misplaced one-tenth of an inch out of the centre of the picture. As an example I have engraved two ruled images of a medal of HOMER, belonging to Mr. LANG, C. S. with the deviation or distortion thrown in opposite directions. Few will believe that they represent the same object! In running down the relief (as in the cavity of the ear, and the front of the forehead,) it will be seen that the engraved lines return and cover a part of the plate already engraved! There is to be sure an attempt to *diminish* the fault by lessening the deviation of the engraved lines:—thus, the one-tenth altitude may be made to give a deviation of only one-twentieth or one-thirtieth in the engraving (by lessening the angle of axis B—but the light and shade will be thus equally diminished, and the whole effect destroyed.

The mode in which Mr. BATE junior got rid of this difficulty in his patent instrument is then described—and it was its ingenuity which alone led me to send for one of the instruments to rule my Bactrian coins, rather than attempt to make one for myself, which I shall now be compelled to do.

“My son, observing, that the thing to be desired was, a means of bringing the tracer down upon the medal, a quantity equal to the deviation of the etching-point from the straight line upon the plate; observing also that the process he was employing, transferred *vertical* sections of the medal to the plate,—proposed taking *inclined* sections of the medal. A little consideration determined the selection of  $45^\circ$ , as being equidistant from the vertical and horizontal positions employed and this inclination *completely fulfilled the purposes required, removing the distortion altogether*, and so far from impoverishing the effect of light and shade, improving that effect, inasmuch as without diminishing its quantity it threw the light upon the representation of the medal at an angle of  $45^\circ$  to its plane, instead of as before in the direction of the plane of the medal\*. The arrangement finally adopted is represented in fig. 2.

“The tracer *c* being now attached to the right-angled triangle *efg* and a friction roller substituted for it at *h*, the triangle (the motion of which was strictly confined to the plane of the diagonal *eg*,) moved *d* a quantity always equal to the distance of the tracer *c* from the perpendicular *p*, so that the etching-point described precisely the same line upon the plate *b* as the tracer described upon the surface of the medal *a*.”

Nothing could be more simple, efficient and correct than this improvement, and though the merit of it has been contested by the French and by the Americans, I thought Mr. BATE justly entitled to his patent (of which by the way I have seen no specification yet in the Repertory) and willingly acceded to the terms he enjoined to my friends in England on consenting to make me one,—namely, that I should not make

B is a second axis fixed on A at any convenient angle, carrying the arm which holds the diamond point or graver.

\* This is not so comprehensible—the effect of light and shade depends merely upon the amount and direction of the deviation: and the smaller the relief of a medal, the more horizontally the light is required to fall on it in order to exhibit parallel effects to those of more angular light on a high relief.



use of it in England. It is so far fortunate that I am now driven to my own resources, and compelled to invent and to make an instrument which, though quite on a different plan from that depicted in BATE's diagram, will I hope produce the same correct effects, with the additional advantage of being adjustable as to angle of the guiding plane *e g*, so as to regulate the force of light and shade ad libitum; while I shall moreover be at liberty to use it wherever I please.

I find that impressions in hard sealing wax answer perfectly for ruling, in cases where parties are afraid of trusting original gems or coins under the tracing point. But it should be remembered that the casts must be in relief like the coins, or their image will be reversed in the engraved representation.

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VII.—*Note on a fossil Ruminant genus allied to Giraffidæ in the Siwalik hills. By Captain P. T. CAUTLEY.*

When we look at the number of species of Proboscidean Pachydermata which swarmed in the primeval forests; when we see that in the present day nature appears to have left but solitary species to attest the gigantic form of primitive existence, the imagination naturally places before our eyes forms of corresponding magnitude in other genera; we picture to ourselves gigantic ruminants and gigantic carnivora only to be revealed by the remains which nature has placed in its own keeping to exhibit to inquiring man the wisdom of design and the systematic chain of organization established throughout the whole of the animal kingdom.

Amongst the Ruminants the discovery of the *Sivatherium giganteum* has most amply tended to prove the truth of this induction, exhibiting a ruminating animal bearing the same proportion to the rest of its genus, as the Mastodon and Elephant do to that of the Pachydermata. Amongst the Carnivora we have the *Ursus Sivalensis*, an animal far exceeding in dimensions its congener of the present period, or the *Ursus Spelæus* and bears of the German caves; with a species of hyæna at least one-third larger than that now existing. The reptiles also have their gigantic representative in an entirely new genus of the tortoise, for which we propose the generic name of *Megalochelys*, from the enormous proportions of its remains as yet discovered, and the size of its femoral and humeral extremities equalling those of the largest rhinoceros. The question however does not appear to be whether the animals of former periods were larger than those now existing, but

whether the genera of larger animals were not more numerous? We appear to be gradually losing all the larger forms of the creation. The Elephant and Giraffe of the present period will in all probability share the same fate as the Mastodon and Sivatherium of former eras, and be only recognised in the proofs exhibited by the researches of the geologists.

Having discovered the type of a gigantic Ruminant amongst the fossils of the *Siwaliks* in company with the remains of the larger Pachydermata, and having at the same time proved the existence of the Camel, with other numerous species of the Cervine and Caprine families of Ruminants, it was not by any means improbable that the present tribe of Giraffidæ should have its representative, so that the connection of the chain of existing and fossil ruminants might be still more perfect. The discovery of the Sivatherium and Camel in conjunction led to the probability of the existence of the Giraffe, giving this genus the first position amongst the family of Cervidæ: The fossil now to be described appears to throw some light on the subject, and should further research tend to corroborate the contents of this paper, it will be interesting to remark on the co-existence of the Sivatherium, Camel and Giraffe, with Quadrumana, Anoplotheria, Mastodons, and reptiles so closely resembling those of the present rivers, that it is not possible to discover in their osteological pictures at least, any remarkable deviation from the type which has been left to us.

The remain which I wish to describe is the third cervical vertebra: it was cleared out of a block of sandstone, and as is usual in similar cases, is very perfect in all its parts and proportions, and sufficiently armed with processes for the purpose of recognition and comparison. The dimensions are as follows.

Length in the barrel, .....	Inch. 7.8
Breadth in centre ditto, .....	1.7
Depth ditto ditto, .....	2.2

There are marked differences between this fossil and the corresponding vertebra of the existing camel, and in comparing them together the following appear to be the most worthy of notice.

In the fossil the oblique processes are much shorter, and stouter than those of the camel, with articulating surfaces at a greater angle: the barrel of the vertebra is much longer: the hollows or depressions which appear directly under the anterior oblique processes, and the ridges radiating from the extremity of the spinous process towards the expanded surface of the posterior oblique processes so well marked in the camel, are altogether wanting in the fossil: the upper surface

with the exception of the spinous process being altogether flat and unmarked.

On the inferior or lower side of the vertebra, there is also a considerable difference, that of the camel being much curved and hollow, uninterrupted by ridge excepting in the vicinity of the posterior extremity, where there is a knob or round process : in the fossil this knob is wanting, but in its place there exists a well defined sharp ridge from one extremity to the other. The transverse processes of the fossil are imperfect, but the form and angle of departure from the barrel of the vertebra differs from those of the camel.

The foramina for the transmission of the vertebral artery are well defined in the fossil, the space between the entrance and exit occupying the central third portion of the whole length ; a prominent well defined ridge runs obliquely across the plane of the side connecting the upper anterior oblique process, with the lower and posterior extremity of the transverse process, a very marked peculiarity, which with the position of the foramina, separates the fossil from the camel.

It would be a great assistance to us were the Curator of the museum to draw up a monograph on the Giraffe, including measurements in detail of the skeleton, a specimen of which exists in the room of the Asiatic Society. The dimensions given in English and French measure would enable us, under the impossibility of obtaining the skeleton itself, of forming accurate conclusions as to the existence or not in the fossil state of the true Giraffe\*.

*Northern Doab, July 15th, 1838.*

VIII.—*Sketch of the sculptured images, on the temple of Grâmeswara, near Râtrapur : extracted from Lieut. KITTOE's Journal.*

Thursday the 8th December we marched at  $\frac{1}{2}$  past 4 A. M. and reached our ground a little before eight o'clock, having travelled over 9 miles of road, though the actual distance from camp to camp at Râtrapur must be but 6 miles ; the distance measured in tolerably direct lines (as in yesterday's march) was 8m. Of. 183y. The road winds a great deal, partly to avoid nullahs and uneven ground, and most of all, cultivated lands and villages ; we passed under mango topes for nearly the whole way, some entire plantations, others the remnants of what had formerly been such : most of them are choked with underwood and rank vegeta-

\* The Society's museum does not possess the skeleton of a Giraffe, or we should have readily complied with our correspondent's request. The remains of the animal which died some years since at Calcutta came, we believe, into Dr. PEARSON's possession, but were not included among the collection presented to our museum by HAJI KERBALAI MUHAMMAD.—ED.

tion ; the "bent" or ratan plant is the most conspicuous ; the country in this respect resembles the terai of the Himálayas. It would appear from the numerous topes and mounds of earth strewed with pottery, hewn stones and bricks, which mounds rise above the surrounding low lands, that the country had been thickly inhabited in former years, as was likewise the terai in Upper India. When and why, all these valleys have been forsaken, is a matter which it would be difficult to attribute a cause to ; there are however less bricks and stones on the mounds or "Tanghees" (as they are here called) than on those of the Upper Provinces ; from this I should infer that the huts of former times were just the same as those now constructed ; namely, of a timber framework to support what is known in Europe by the name of "wattle and dab," which, from the swarms of white ants that (I may say) infest these regions, cannot be very durable : some however are more substantial, being built with mud and unhewn stones.

But to return to our route : for near a mile at the commencement of the march, the road winds through the narrow lanes of the villages mentioned yesterday, beyond the furthestmost of which and on the banks of the river running 100 yards from the road, stand the ruins of a small and once highly elegant temple dedicated to MAHÁDEO by name *Grámeswar* ; it is of white sandstone of a very fine grain ; what remains of the sculpture is truly elegant, the figures and idols are very graceful ; they are in the style of the temple of *Anrung Vásudeba* and others of the same era at the famous *Bhuvaneswar*\*. It is said to have been built by rája PARSUTTEM DEO who reigned from A. D. 1478 to 1503 A. D., and that it was destroyed by the apostate and spoiler, KALA PAHAR, who invaded *Orissa* from *Gaur* in A. D. 1609. This person waged a war of destruction against all the temples that came in his way ; the natives believe him to have been a "rakshas" or demon, that he possessed a magic kettle drum at the sound of which the noses and arms of all the idols dropped off, as well as the tops of the temples ; it was in vain I attempted to persuade the ignorant bráhmans of the different temples I visited, that KALA PAHAR was but a man like themselves.

The superstition and timidity of the people of these provinces exceeds any thing I have ever witnessed in any part of our presidency from *Ludiana* downwards.

\* \* \* \* \*

A quarter of a mile above the village†, is an island separated from the rocks on the main land by a broad and exceedingly deep channel of the river flowing between. On this island (which is well wooded) are the remains of a very ancient temple dedicated to MAHÁDEO by the name of "*Pachameswar*," also "*Mánjī thákur*", or the Steersman Lord. The style of the temple is that of those in the Carnatic (if I mistake not), and like a few of the more ancient temples of *Bhuvaneswar* ; it has evidently never been completed, the stones are laid without mortar and are fixed with iron clamps, which have aided in no small degree to destroy the edifice. It is much to be regretted that the Indian architects of olden

\* Vide Pl. XXXII.

† The Village of *Khandharpúr*.



times had recourse to such an indurable method of fastening their masonry, many of the most elegant buildings at *Agra*, *Dehli* and elsewhere have been destroyed by this ill judged practice ; the iron after the lapse of a few years expands from corrosion and splits off large masses of the masonry.

The *Tāj* has suffered greatly from this cause, which was discovered even before the work was half finished ; copper and brass fastenings were then substituted, these have saved the dome from injury : brass clamps have however been used in other public works of antiquity in India, for several have been found in the masonry of the fort of *Cuttack* during its demolition for the use of the False Point lighthouse.

It appears that it was formerly the practice to build the temples with the material rough wrought, and to sculpture them afterwards : this temple is one of the many instances of such a custom.

Towards the top of the conical tower are several words cut on the unfinished surfaces of two of the compartments ; the character is *Gaur* Sanskrit : the letters are clearly cut, and very large\*.

The temple has evidently been consecrated in former years to *DEVI* or *DURGA*, Fig. 1, p. 2, xxxvii. There is a legend connected with this curious place which was told me by the attendant priest or *Sevaka*.

The story is as follows. Many years ago when the Hindu deities performed their miracles and deigned to appear unto a favored few, a rich merchant was coming from the western provinces in a large vessel (for in those days the *Mahanadi* flowed narrow and deep) laden with goods of great value. The vessel on approaching the rock was about to be dashed against it, but being drawn into a whirlpool was being equally threatened with destruction : the merchant who had an only offspring with him, invoked the goddess *DEVI* that if she would save their lives and property he would offer up his child as a sacrifice to her bounty. The boat remained fixed and unhurt, when the merchant lamenting, fulfilled his vow by throwing the child into the river ; it sunk, but instantly *DEVI* in the form of a mermaid rose from the water with the child unhurt (standing on the palms of her hands) which she restored to its father, demanding as an acknowledgment that he should build and endow a temple to *Siva* and present it with a golden bell. This he accordingly did ; however many years after a thief was tempted to swim to the sacred island and to steal the golden bell, which he was deprived of by the deity, who, as he was descending the rock, annihilated the sacrilegious mortal, and converted the bell into stone. I proceeded in a boat to see this spot where the credulous Ooriyas fancy they can discern the bell and clapper ; it is a hollow place in the rock, just above the watermark of the dry season, with a nodule of quartz (of which there is a great quantity imbedded in the coarse sandstone) projecting downwards from the upper surface of the cavity ; this they call the clapper ; the whole surface is besmeared with red lead and oil, and offerings are constantly made there, for which purpose it is necessary to go in a boat.

\* The reading in Nagree is thus, श्री विचित्र श्वरदेवः, श्री विचित्र भूषणः vide Journal As. Soc. No. 60 of December 1826. "The divine Lord of beauteous variety." "The variegated ornament."





Antelith. Temp. Calcutta

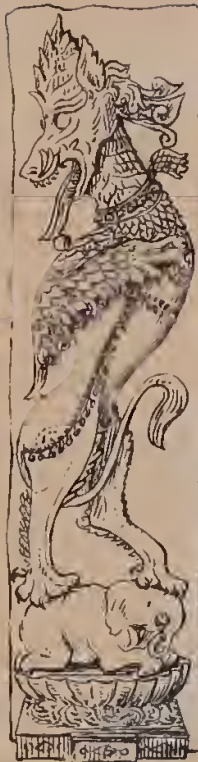


M. K. Lath'





SAIVA





IX.—*Proceedings of the Asiatic Society.**Wednesday Evening, the 1st August, 1838.*

The Honorable Sir EDWARD RYAN, President, in the chair.

Mr. WILLIAM EDWARDS, C. S. and Major WILLIAM GREGORY, Bengal Army, proposed at the last meeting were elected members of the Society.

Sir GRAVES HAUGHTON wrote to thank the Society for the Sanskrit works presented to him.

“It was my good fortune, he writes, to be in London at the time the council appealed to the home authorities against the sweeping and extraordinary decision of the Bengal Government regarding the publication of native works by the Committee of Education ; I made a point of collecting all the documents I could, and of laying them before our President. I have reason to think that my efforts were of some use in preparing the way for the success of the deputation which afterwards waited on the President of the Board of Control.”

Read the following report of the special Committee appointed for considering the expediency of printing the *Sarira Vidya*.

*Report.*

The Committee appointed in your letter of the 20th instant, beg leave to state that they have duly investigated the several questions you have proposed and that they consider,

1st. That the translation of HOOPER's Anatomist's Vade Mecum having been already made and paid for, that work should be adopted as the basis of the proposed volume for the use of the native medical pandits of India.

2nd. That several additions, alterations and explanations are indispensable to render the volume accurate or instructive.

3rd. That a few lithographic drawings on the scale of the wood cuts in PAXTON's work would materially add to the value of the publication.

4th. The Committee have had the advantage of the advice and opinion of Dr. GOODEVE on the subject, and Dr. GOODEVE has kindly offered to examine the corrections proposed by MODHUSODUN GOOPTA and to give his general superintendence in the progress of the work. This liberal offer the committee consider should be at once thankfully accepted.

For the labor of correction and supervision the Committee think MODHUSODUN GOOPTA should receive a moderate remuneration, the amount of which the Committee scarcely think it their province to suggest.

Medical College, Calcutta, }  
31st July, 1838.

W. B. O'SHAUGHNESSY,  
Secretary to Committee.

The President thought that the report omitted to touch upon one point of considerable importance, viz. the estimated expense of the publication. The Committee seemed to concur in recommending the *Sarira Vidya*, because the translation had been paid for, and because Mr. MUIR's bonus of 1000 rupees would cover the printing :—but he perceived from the Secretary's notice at the last meeting, that 2000 rupees more might still be required to complete it, including the plates and additions it was proposed to supply. Under these circumstances the aspect of the question was materially changed ; and he would put it to the meeting whether it would be justifiable for the Society to expend so much upon a Sanskrit translation which but a very limited class could read, when the money might be so much better employed in imparting the same or other knowledge to the great body of the people in their own vernacular tongue. He therefore moved, seconded by Mr. HARE,

That a fresh reference be made to the special Committee begging their opinion, whether it be expedient for the Society to expend any portion of its funds on publishing a Sanskrit translation of the *Vade Mecum*, rather than to devote the amount to the imparting of instruction to the mass of the people in the Hindustani language, even though in so doing it forfeit the advantage of Mr. MUIR's bonus, and of the translation already made.

The Secretary explained that the *Sarira Vidya* had become the Society's property by transfer from the Committee, on condition of its being printed. He had merely reserved it until the more important Sanskrit works should be completed. He could not have anticipated any objection on the score of inutility. It was intended to convey to the medical pandits throughout India, who are an exclusive caste of hereditary monopolists in their profession, and all study their art in Sanskrit, a more correct notion of human Anatomy. Originally the *Sarira Vidya* had been also destined to become a class-book in the medical branch of the Sanskrit College, but that class had since been abolished, and the teaching of the medical art limited exclusively to English.



What stronger argument of the utility of the book could be adduced than the tender of a bonus of 1000 rupees to effect its publication by a gentleman who had for two years in vain held out the same premium for an essay in English and the vernacular, on the advantages of science! Once placed in a Sanskrit dress, the European system of anatomy would be accessible all over India for subsequent transfer into the Hindi dialects of every province if requisite, and it was no trivial argument that the same work had been already printed in Arabic, and thus made available for the Musalmán practitioners and for translation into Urdú when called for. If doubt existed as to the propriety of publishing in the learned languages, he submitted that the special Committee of medical men consulted on a purely professional point, were hardly competent judges, and he moved, as an amendment,

That the question of the propriety of publication, be referred to the Committee of Papers in the ordinary course.

The President objected to the Committee of Papers because he thought they were more likely to have a leaning in favor of Sanskrit\*.

On taking the votes on the question by shew of hands the amendment was lost and the original motion carried by a majority, the name of Bábú RAM COMUL SENA being added to the committee on the motion of Mr. HARE.

Read, the following reply from Government to the reference made in virtue of the resolution of last meeting on the subject of the Oriental publication grant.

No. 844, General Department.

To JAMES PRINSEP, Esq.

SIR,

Secretary to the Asiatic Society.

I am directed by the Honorable the Deputy Governor of Bengal to acknowledge the receipt of your letter dated the 12th instant with its enclosure, and in reply to state that under the circumstances represented his honor the Deputy Governor is led to believe that he shall only conform to the wishes of the honorable the Court of Directors by giving to their orders on the subject of Oriental Publications so much retrospective effect as shall relieve the Society from the debt it has incurred in completing the publication of the works made over to it by Government. A Treasury order will accordingly be issued in favor of the Sub-Treasurer to enable him to pay to your receipt, on a bill to be drawn in the name of the Asiatic Society, the sum of 2,500 Company's rupees, which appears to be the amount advanced by the Society as stated in Para. 3 of your letter under reply.

2. The completion of the remaining volume of the Mahábhárata will fall within the natural appropriation of the monthly allowance prospectively assigned.

I remain, &c.

H. T. PRINSEP,

Secretary to the Government of Bengal.

Fort William, the 18th July, 1838.

The Secretary to Government in reply to the Alif Leila reference, wished to learn the cost of the translation, and the number of volumes, previous to determining on the amount of patronage to be bestowed.

Library.

The following books were presented :

The Bulletin de la Société de Géographie, 2nd series, vol. 8—by the Geograph. Society of Paris.

Result of astronomical observations made at the H. E. I. C. observatory at Madras, by THOMAS GLANVILLE TAYLOR, Esq. H. C. Astronomer, vol. IV, 1836, 1837—by the Government.

Defence of COLEBROOKE'S exposition of the Vedanta philosophy—by Sir GRAVES C. HAUGHTON.

Recollections of the Deccan—by the Author.

\* We must apologize for the imperfection of this report as we kept no note. Mr. E. STIRLING and others spoke on their experience of the Hindi Vaidyas up the country receiving their instruction in Sanskrit, whatever it might be in Bengal,—(where every one knows Sanskrit is more read and better understood than elsewhere, because it is more closely dependent on the Sanskrit for all abstract terms.)—ED.

The Quarterly Journal of the Calcutta Medical and Physical Society, No. VI.—*by the Editors, Prof. GOODEVE and O'SHAUGHNESSY.*

Rapport annuel sur les travaux de la Société d' Histoire naturelle de l' ile Maurice, 1837—*by M. JULIEN DESJARDINS.*

Meteorological observations for Dec. 1837 and 3 months of 1838, at Maurice—*by the same.*

Ditto at Calcutta, for June—*by the Surveyor General.*

Observations meteorologiques faites a Mattepolliam, et a Kotigherry aux Neilgherries, eu Mars, Avril, May et Juin 1838,—*by M. ADOLPHE DELESSERT.*

The following purchased at the suggestion of the Museum Committee.

JARDINE and G. VELBY's Illustrations of Ornithology, 1st fasc. N. S.

Lardner's Cyclopaedia—Russia vol. I. from W. ALLEN and Co.

A letter from Government forwarded for deposit in the Society's library, an account book and map belonging to the late travellers MOORCROFT and TREBECK, which were lately recovered with 50 other volumes from the chief of *Kunduz*, MEER MOORAD BEG by Dr. LORD.

The following information respecting the fate of these unfortunate travellers is extracted from Captain BURNES' report on the subject to the Governor General, dated 1st May, 1838.

*Memorandum regarding books and papers of the late Mr. MOORCROFT, by Mr. LORD.*

1. I have the honor to present you a list of books and papers belonging to the late Mr. MOORCROFT which I have been so fortunate as to recover during my recent journey to Toorkistan.

2. For the greater part of them I am indebted to MEER MAHOMED MOORAD BEG who, immediately on my arrival at *Koondooz*, wrote to the khan of *Moozar* desiring that all such relics of the European traveller should forthwith be sent. In reply to this, 50 volumes all of printed works were immediately forwarded, the remainder including the maps, Mr. MOORCROFT's passports in English and Persian from the Marquis of Hastings, and a MS. volume with several loose MS. sheets, chiefly of accounts, I was enabled to recover when by the Meer's permission, I myself, made a visit to *Khooloom* and *Moozar*.

3. I think the evidence I have received proves, as strongly as the nature of negative evidence will admit, that no MS. papers of any value belonging to that ill-fated expedition remain to be recovered. I paid every person who brought books, and always explained that I would give double reward for any thing that was written, and though in consequence of this, several sheets of MS. were brought me, they never appeared on examination to contain any thing beyond accounts and such routine matters. Now as the natives must be unable to make the distinction, the chances evidently are that if any papers of importance existed, one or two of them at least would have found their way to me amongst the numbers presented.

4. I append a letter from MIRZA HUMEE OOD DEEN, the principal Secretary to the Khan of *Muzar* and a man who attended Mr. TREBECK in his last moments, saying that two printed and one MS. volume are in existence at *Shuhr Subz*, and that he had sent a man to recover them for me. As I have since been obliged to leave the country, and all communication is by the present state of affairs at *Cabool* rendered impossible, I mention this fact as one worthy the attention of some future traveller.

5. The map is in itself a document of much interest as containing Mr. MOORCROFT's route traced, evidently with his own hand, and continued as far as *Akcha* within one stage of *Audkhoe*, where he is known to have fallen a victim, not more, I believe, to the baneful effects of the climate than to the web of treachery and intrigue by which he found himself surrounded and his return cut off. On the back of the map is a MS. sketch of the route through *Adkhoe* to *Meinuma* and back through *Sireepoor* to *Bulkh*, as though he had planned a tour through these little independent states, partly perhaps to see the horses for which they are famed, and partly to wile away the weariness of expectation till a safe conduct should be granted him through the territories of the ruler of *Koondooz*. We can thus almost trace the last object that engaged his mind and in the prosecution of which he laid down his life.

6. Connected with this I beg to subjoin a slip of paper which I found amongst a pile of loose accounts and which bears in Mr. TREBECK's writing, the following entry.

"Date September 6th 1825. Arrived at *Bulkh* August 25th, Mr. M. died August 27th," placing the date of Mr. MOORCROFT's death beyond a doubt, and also I think affording negative evidence against the supposition of its having been caused by any unfair means.

6. But the same paper is further interesting from an accidental coincidence. The MEERZA I have before mentioned accompanied me from *Tash Koorghau* to *Muzar*, and in the course of conversation, which naturally turned in a great measure on the melancholy fate of MOORCROFT's party, he said that about a month before the death of TREBECK he had one day gone to him, by desire of the Khan, to purchase some pearls which he heard he had. TREBECK produced the pearls but when questioned about the price said in a desponding tone, Take them for what you please, my heart is broken, what care I for price now? The entry is this: "Total on the strings, 280 grs. Oct. 15th. Taken by MEERZA, 131 grs. or 4 miskals. 16th. Taken by DEWAN BEGHEE 33 grs. or 1 miskal." It will be observed no price is affixed;—probably none was received. A stranger in a foreign land far from the soothing voice of countrymen or kinsfolk, surrounded by rude hordes who looked on him as the only obstacle to possessing themselves of the countless treasures which they believed to be in his charge, his youthful spirit pined and sunk. The bright visions with which he had commenced his career had long since vanished:—where he had looked for pleasures he had found toils, where for rest, he had to guard against dangers: sickness had carried off many of the companions with whom he had set out and when at last it struck his guide, his own familiar friend to whom he had looked for support under every adversity, and for rescue from every difficulty, and when in addition he found that all hopes of return to his native land seemed if not cut off at least indefinitely deferred, his heart as he too truly said was broken, and in a few short weeks he sunk into an untimely grave. I should apologize for a digression unsuited I confess to the character of an official paper, but it is impossible to hear the warm terms in which poor TREBECK is still mentioned by the rude natives amongst whom he died without feeling the deepest sympathy in the fate of one who fell "so young and yet so full of promise."

7. It is only necessary I should add one or two more observations. The account book, which I now forward, is a valuable document in more respects than one. It contains an accurate list of the stock originally purchased by Mr. MOORCROFT when starting for his journey, and will serve to modify considerably the extravagant ideas that have been entertained of the quantities of goods which he carried. Taken in connexion with the loose MS. accounts it will serve also to evince that the greater part of this stock was sold off previous to his leaving *Bokhara*, and as far as my information goes I am inclined to believe the proceeds were chiefly expended in the purchase of horses, of which I understand he had when he died somewhat under a hundred, including specimens of all the best Uzbek and Turkooman breeds.

8. The account book is further interesting as containing in Mr. MOORCROFT's own handwriting a list of the articles which he offered on his presentation to the king of *Bokhara*, and a note at the end to the effect that the king had, in return ordered him a remission of the duties of his merchandize rather more than equalling the estimated value of the goods. It is further satisfactory to be able to add, on the authority of several *Bokhara* merchants who were on terms of intimacy with him during his stay in that city, that his character was highly appreciated by the king, who frequently sent for him to enjoy the pleasure of his conversation, and conferred on him the high privilege, never before granted to a Christian, of riding through the city and even to the gate of the king's palace on horseback.

9. In addition to the list of his merchandize this account book contains also a list of his private property, which it appears Mr. MOORCROFT was obliged by order of the *Koosh Beg* to make out on entering *Bokhara*: from this list we learn that he possessed 90 volumes of books. The number I have recovered and which I have now the honor to place at your disposal is 57; amongst them are several odd volumes of which the sets if complete, would give an addition of about 30—total 87, so that there are probably not more than two or three volumes of which we may not consider ourselves to have ascertained the fate. As to MSS. I have already shewn the high improbability that any of consequence have eluded my searches.

10. Scattered through the printed volumes numerous notes and corrections in Mr. MOORCROFT's own handwriting will be found. Of these some referring incidentally to the dangers of his journey, or laying down plans as to the route by which he meant to return, cannot be read without emotion.

11. In conclusion it is but justice to add that the impression every where left by this enterprising but ill-fated party has been in a high degree favorable to our national character.

*Peshawur, 26th May 1838.*

(Signed) P. B. LORD.

*Translation of a letter from MIRZA HUMEE OOD DREN to P. B. LORD, Esq.*

"A. C. Two books and one manuscript are in the city of *Shuhr Subz*. I have sent a person to bring them and when they reach me I shall send them to you. In all things I will never forget your good offices. Let me always hear of your welfare. Believe what the man says and that I am your well-wisher. Dated Mohurrum 1254 A. H."



[The list of books, principally medical, it is unnecessary to insert.—ED.]

*Literary and Antiquities.*

The revised copy of the *Girnar* inscription made with the utmost care by hand, was received from Lieut. POSTANS, who had since been deputed to *Baroda* on duty.

This copy satisfactorily clears up almost all the passages at all dubious in Captain LANG's original,—it will be necessary to publish a revised translation in consequence.

Captain BURNES forwarded copy of, 1st a short Buddhist *Pāli* inscription, from the country of *Shah Kuttore*, or *Chitral* south of *Badakhshan*, on the river *Kooner* (the *Kaure* of *Elphinstone*, a principal feeder of the Indus); 2, facsimiles and ectypes of a Bactrian inscription from *Kapurdigheri*, the same of which a sketch was formerly taken by M. COURT; and 3, a small inscription, in a modification of the same character, under the other.

[We shall publish these immediately, but we fear without interpretation.]

Mr. H. T. PRINSEP, Secretary to Government, forwarded copy of a vocabulary of the language of the Moghel Aimeks, by Lieut. LEECH, for such notice as the Society might deem it to merit.

This is the eighth language or dialect of which Lieut. LEECH has made himself master in the course of his present journey.

Captain BURNES also forwarded for inspection 5 gold coins dug out of the top of *Khaiber*.

They were found a few feet below the surface by a party of Afghāns who were digging a trench on the mound to protect themselves from the attack of another party. One coin was of *Mokadphises*; the others were varieties of the *Kanerkes* group.

With reference to the legend of the *Mokadphises* coin, the Secretary announced that he had been fortunate enough to discover a scheme of the Bactrian alphabet, which enabled him to read the whole of the Bactrian legends with much greater facility, and semblance of truth than he had before been able to obtain. The language he now perceived to be *Pāli*, although somewhat disguised by being written in an alphabetical system as foreign to its structure as the Persian would be to the modern Bengālī.

[The paper is published in the present number.]

Mr. MADDOCK proposed that the Society should take steps to procure some fragments of the richly carved sculpture of the *Kanāruk* temple, now thrown on the ground and in danger of destruction.

It seems that permission having been given by Mr. WILKINSON to the *Kurda* rāja to supply himself with stones (meaning probably the loose detached stones) from the black pagoda, the rāja had commenced deliberately dismantling the temple and carrying off all the images to ornament his own house!—in moving one large figure he had been obliged to take down the beautifully carved door depicted by STIRLING, and unless stopped there would soon cease to exist this venerable monument so long the principal landmark on the coast.

Resolved, to address Government to suspend if possible the further demolition of the *Kanāruk* temple, or otherwise at least to secure some of its sculpture for preservation in the museum.

Mr. J. P. GRANT, presented for the museum in the name of Mr. CHURCH of *Penang*, two bows and a bundle of arrows from that island.

Col. STACY presented on the part of Major YULE an ornamental Lithograph of a gold medal of SHAH JEHAN, weighing 70 oz, dated 1064 Hej.

*Statistical.*

Dr. SPRY laid on the table various tabular statements which had been prepared under his predecessor and himself,—but, at the request of the President, he withdrew them in order to embody them in a formal report by next Meeting.

PHYSICAL DEPARTMENT.

The following extract of a letter from Lieutenant HUTTON, on his return from deputation to the *Spiti* valley, was read.

*Soongnum, 5th July, 1838.*

I am now again at *Soongnum* in *Kunawur*, having recrossed the *Hungrung* Pass yesterday, on my return from *Speetee*, and bid adieu to the Tartars. The Passes to *Ludak* from *Speetee* were quite impassable from the great depth of snow which had fallen full two months later this year than usual, throughout the hills. Every

thing is very backward in consequence,—and in the higher parts of the *Speetee* valley, there is great distress from the loss of last year's crops, which were beaten down and buried beneath an early fall of snow. I experienced the greatest difficulty in reaching the fossil ground owing to the want of supplies and the unwillingness of the *Kiladar* at *Dunkur* to allow me to proceed. On my arrival beneath the fort, he sent me orders to return, as he had received instructions from *Ludak* to oppose my advance. In this emergency, finding myself within a few miles of the desired object, and unwilling that the wishes of the Society should be frustrated, particularly after the fatigues and discomforts I had experienced on my way; I bethought me that it is sometimes expedient when "at Rome, to do as the Romans do;" consequently finding that I had about as many men, and better arms than my opponent, I sent him back threat for threat, and told him that it was my intention to proceed by force if necessary, and that if he offered to oppose me, I would burn his castle about his ears. The threat had the desired effect, and I received answer that his highness would pay me a visit, which he did, and having thus dismounted him from his high horse, I made him furnish me with six days' provisions for my people, by which means alone I have been able to visit the fossil ground and determine the geological formation of those dreary and melancholy looking regions. The fossils themselves as specimens are certainly not worth one quarter of the trouble they have occasioned me, and partake of the same decomposing nature as the shales in which they occur. Such as they are, however, I have collected them, and they will be interesting when taken in connection with the geological specimens of the whole country travelled over. In natural History this is the most barren country I have ever seen; of birds there are scarcely any, and of beasts none but the wild sheep. If the season be not against me, however, I may yet procure good specimens in the lower hills. Here there is no covert for living creatures, but lower down in *Kunawur* where the forests are thick, I shall be able to make up a collection. The geology is however, I think very interesting and may perhaps cover the imperfections of other branches of my work. I have the "*Bhair* or gigantic partridge;" the common chough, and another of the genus, which I am inclined to think is new; pigeons and college pheasants also. The tragopan and monal are not found up here, but occur from *Wangtoo* downwards. Of the wild sheep I have been able to procure only one specimen, which the heat has spoiled in spite of lbs. of arsenical soap; the thermometer at 1100 was almost enough to have spoiled me too. At *Nako* in *Hungrung* at sunrise on the 3rd July 370,—at *Leoo* at noon, 110° in sun, 100° in my tent; and sunset 70°.—I am worn to the bones with fatigue, and anxiety lest the Society should feel disappointed with the results of my journey but I feel conscious of having done my utmost and must therefore wait patiently the decision of my judges. I shall halt here for a day or two to rest, as there are some things worth seeing in the neighbourhood, such as copper mines, &c. Poor GERARD's account of "excellent limestone in this neighbourhood," was premature; he failed in his attempts to burn it, so say the people, and so says the stone, for it is a secondary limestone containing clay and sand and burns to a *slag* in consequence.

Three more specimens of Indus jet coal were received, through Government, from Captain BURNES.

Mr. H. B. HODGSON, addressed to the Society's care through the Honorable Col. MORISON, a further roll of drawings illustrative of the zoology of *Nipal*.

The Secretary noticed as an omission on his part in the steps taken to promote the success of Mr. HODGSON's undertaking by the Society, that it had not yet solicited the usual patronage of the Government to his elaborate and costly publication. Having recommended the Royal Asiatic Society to solicit the patronage of the Court at home, he had deemed it superfluous to do so here, but as nothing had apparently been done there he thought it was now incumbent on the Society to do it at once.

*Resolved*, that the present roll of zoological drawings be submitted to the Hon. the President in Council with a solicitation for such degree of public patronage, as the national character of the publication may seem to entitle it from the Government of British India.

Lieutenant E. CONOLLY, 6th Cavalry, communicated the following particulars of the recent fall of an aerolite in Central India.

Three aerolites fell during a heavy storm and after a vivid flash of lightning, on the same day, i. e. about the 23rd June.—One at *Burnuggur* (also called *Nolai*) the other two near *Oujein*. The three are said to weigh two maunds (together) and to be of three colors, green, yellowish red, and French grey, but on such points native authority is questionable. There seems no cause to doubt their having really



fallen, the fact having been officially reported to the Resident of Indore by the *Oujein* akhbâr navis. I also heard of it from private letters.

Mr. BAX has ordered them to be sent to him, and has promised to forward them on to me when he shall have satisfied his curiosity by the sight of them.

Should they not be required by superstition for gods, which is more than probable, specimens shall be sent to the Asiatic Society and to yourself.

A note on the geology of the desert and the navigability of the *Lonj* river was communicated by Captain BURNES, in consequence of a remark in the Report of the Coal Committee, on the want of such information.

#### Natural History.

The following presentations to the museum, were noticed by the Curator.

Skeleton of the Bengal Bustard, *Otis Bengalensis*.

Skeleton of the Negro Money, *Semnopithecus Maurus*.

This monkey preserved in spirits, was on a former occasion presented by Dr. PEARSON, but falling into a state of decay, it was thought advisable to prepare and articulate the bones for a skeleton rather than allow the specimen to be lost to the Society's museum.

Crania of the Red, or Asiatic Orang Otang. (*Pithecus Satyrus*, GEOFF.) one from *Borneo*, the other from *Sumatra*\*.

These valuable relics of what appear to have been most extraordinary gigantic monkeys were presented by Major GREGORY. They are those of adult males each exceeding in size even that of the *large* one killed on the N. W. coast of *Sumatra*, figured and so admirably described by Dr. ABEL in the Society's Transactions and which is stated to have measured 8 feet when suspended for the purpose of being skinned, parts of the spoils of which are now deposited in the museum. As no very marked differences are perceptible in the general conformation of the skulls of these two animals, and they exactly correspond with each other in their dental systems, it is evident that the individuals to which they belonged must have been of the same species. The one from *Sumatra* is the larger of the two and must have been a most formidable and stupendous animal in the living state. The skulls may be considered a valuable enrichment to the Society's collection, for they probably surpass any thing of the kind yet seen.

Inflated and dried stomach and cœcum of the *Semnopithecus Entellus*, or Hanuman monkey.

This is intended to show the sacculated and complex form of the first named viscus, in this group of monkeys, which in this particular respect differs most essentially from the Orangs and most of the other *Simiæ* where the organ is of the usual simple construction, as may be seen by comparing it with the stomach of the *Pithecus Satyrus* placed with it in the museum.

Distended and dried stomach of a wild cat, *Felis Catus*.

Exemplifying the simple form of the organ in this genus of Carnivora.

Specimens of the head, wings and legs of the Flamingo (*Phœnicopterus ruber*), Cranium and imperfect skin of the Crested Porcupine (*Histrix cristatus*), and a dried skin of a large Armadillo, *Dasypus* ——— ? presented by Mr. KIRTOE on behalf of Mr. COLQUHOUN.

A Centipede, (*Scolopendra morsitans*), of large size, captured at the mint and presented by the Secretary.

Skull and skin of a Civet Cat, *Viverra Zibeta*, or Indian variety of that animal, presented by Colonel STACY.

A fine and perfect specimen of the *Silhet* mole (a variety of the *Talpa Europæa*), preserved in spirits, presented by Mr. J. TAYLOR.

The existence in India of this little obscure animal having been doubted by some and denied by others, it affords pleasure in being able to set the matter beyond the power of contradiction by the exhibit of a fine specimen, and the mutilated skin of one of former receipt, one from *Silhet*, the other from *Assam* and which may lead to the belief of their habitat in our more immediate possessions.

From the circumstance of its so completely resembling the European mole in almost every particular it may reasonably be considered a variety of that animal.

G. E.

\* The latter is reserved by Major GREGORY, as the Society possesses one jaw of the same species.





